

TECHNOLOGY DEPT.

# Chilton's MOTOR AGE

MAY 1953



In This Issue:

## The Great Brake Mystery

Tough but oh so  
**GENTLE**



#### TOUGH ON OIL-PUMPING, GENTLE ON CYLINDER WALL

Hastings gives you the famous Steel-Vent oil control ring with the right combination of companion rings to meet the particular operating characteristics of each engine. And Hastings gives you the set that's Motor Engineered for replacement service exclusively and for all replacement service—re-bore, re-ring, re-sleeve.



**It's gentle because** Steel-Vent's two wall-contacting steel sections have rounded edges which provide hairline contact, reduce drag to a minimum.



**It's gentle because** Steel-Vent's flexible, low-tension innerspring works only against the steel sections—holds them on wall with soft pressure.



**It's gentle because** the Steel-Vent spacer has extra wide vents that let oil flow through freely for extra cylinder wall lubrication.

IN REGULAR OR  
CHROME SETS FOR  
ALL PASSENGER CARS



# HASTINGS

## STEEL-VENT PISTON RING

● Hastings gives you complete coverage for all passenger cars—in regular and chrome sets—Motor Engineered for each make and type of engine, for every engine condition and operating need. Motor Engineered Sets for trucks, buses and tractors, too. Hastings Manufacturing Co., Hastings, Mich.; Hastings Ltd., Toronto. (Piston Rings, Spark Plugs, Oil Filters, Casite, Drouit)



DO YOU BREAK YOUR  
BACK LOOSENING  
RUSTY NUTS?



NEW! LABOR-SAVING  
**SOLVO-RUST**  
DISSOLVES RUST INSTANTLY

Make all dismantling jobs easier for yourself. Use SOLVO-RUST. It's the dynamite you need for seized parts. A few drops applied to connections dissolves rust and corrosion instantly. Here's the labor saver you need for those frozen muffler tail pipes, cylinder heads, king pins, valve guides, etc. It's excellent for noisy springs and shackles—silences them fast. Stop wasting time trying to coax rusted or corroded parts. Use SOLVO-RUST. It will save you more than it costs. SOLVO-RUST is available from your supplier, or write for name of nearest Permatex jobber.

**PERMATEX COMPANY, INC.**

Brooklyn 35, New York

OVER 50 CHEMICAL PRODUCTS FOR BETTER AUTOMOTIVE MAINTENANCE

Chilton's MOTOR AGE, May, 1953



# America's 5 most famous gasoline salesmen!

MILLIONS of America's car owners know these famous Fire-Chief pups . . . meet them again and again in national magazines . . . on billboards coast-to-coast . . . in direct mail campaigns. These lively pups do a terrific selling job for Texaco Dealers everywhere . . . bring motorists in to their stations . . . help turn gasoline customers into regular customers for the many other Texaco Dealer products and services.

*Another reason why TEXACO DEALERS are such busy dealers!*

THE TEXAS COMPANY



# Chilton's MOTOR AGE

WITH WHICH IS COMBINED AUTOMOBILE TRADE JOURNAL  
Reg. U. S. Pat. Off.

**Frank P. Tighe**  
Editor

**J. K. Montgomery**  
Technical Editor

**Arthur H. Nellen, Jr.**  
Managing Editor

**Frank A. Bozek**  
Assistant Editor

**Marcus Ainsworth**  
Specifications Editor

**Howard Kohlbrenner**  
Art Director

**Leonard Westrate**  
Detroit News Editor

**Joseph Geschelin**  
Detroit Technical Editor

**G. H. Baker**  
Washington Editor

**K. Rannells**  
**R. M. Stroupe**  
Washington News Editors

**R. Raymond Kay**  
Pacific Coast Editor

**Paul Wooton**  
Washington Member of  
the Editorial Board

Member



For THE AUTOMOTIVE SERVICE INDUSTRY

LXXII, No. 6

May, 1953

## In This Issue . . .

Newscoop .....	33
Along the Road.....by Frank P. Tighe	37
News scene .....	38
Inspector Sherlock Jones in the Great Brake Mystery.....	40
Don't Spare the Rods or You'll Spoil the Engine.....by Walter Thill	42
Auto Show Notebook.....by Frank Bozek	44
Pop Stops an Oil Pumper.....	46
Ideas That Paid Off.....	48
Letters to the Editor.....	49
Service Suggestions from the Factories.....	50
New Products Show Window.....	51
Chrysler Dealers' Sons Management Conference.....	55
Rarin' to Go 195 mph. at Indianapolis.....by R. Raymond Kay	56
Know How.....by K. S. Vandergriff	58
Mighty Mite .....	59
New Car Registrations .....	60
Price, Weight & Body Table .....	61
Engine Specifications .....	62
Project for Teen Agers .....	63
Readers' Clearing House .....	64
The Body Shop .....	
The Dent Pays the Rent in June.....by Arthur H. Nellen, Jr.	66
Body Shop Tips.....	67
The Amazing Paint Shop .....	68
Shop Kinks .....	70
Calendar of Coming Events .....	186
Advertisers' Index .....	196

Copyright 1953 by Chilton Company (Inc.)

**G. C. BUZBY**, President and Manager Automotive Division  
**E. H. MILLER**, Adv. Mgr.      **E. W. HEVNER**, Cir. Mgr.  
**CHARLES W. HEVNER**, Research Mgr.

### REGIONAL MANAGERS

**RUSSELL W. CASE, JR.**, Philadelphia      **J. A. LAANSMA**, Detroit  
**CURTIS F. MOSS**, Chicago      **WILSON HOWE**, New York  
**H. M. WERTZ**, Chicago      **R. J. BIRCH**, San Francisco  
**BEN E. BALL**, Cleveland      **L. H. JACKSON**, Los Angeles

Offices: Philadelphia 39, Pa.—Chestnut & 56th Sts., Phone Granite 4-5800.  
New York 17, N. Y.—100 E. 42nd St., Phone Murray Hill 5-8800. Chicago  
1, Ill.—Room 910, London Guarantee & Accident Bldg., Phone Franklin  
2-4243. Detroit 2, Mich.—1015 Stephenson Bldg., Phone Trinity 5-2090.  
Cleveland 14, Ohio—1030 National City Bank Building, Phone Cherry 1-4188.  
Washington 4, D. C.—1093 National Press Bldg., Phone Sterling 3-1844.  
San Francisco 4, Cal.—300 Montgomery St., Phone Douglas 2-4393.  
Los Angeles 5, Cal.—3156 Wilshire Blvd., Phone DUnkirk 7-2119. Member  
of Audit Bureau of Circulation.

MOTOR AGE, Vol. LXXII, No. 6. Published monthly by Chilton Co., Chestnut & 56th Sts., Phila. 39, Pa. Entered as Second Class Matter December 27, 1935,  
at the Post Office at Philadelphia, Pa.; Under the Act of Congress of March 3, 1879. In case of Non-Delivery Return Postage Guaranteed. Subscription price:  
United States, Mexico, United States Possessions and all Latin-American countries \$3.00 per year. Canadian \$5.00; foreign \$7.00 per year; single copies, 40 cents.

One of the Publications Owned by

① CHILTON COMPANY (INC.) ①

### Executive Offices

Chestnut & 56th Streets, Philadelphia 39, Pa., U.S.A.  
Officers and Directors

**JOSEPH S. HILDRETH**, President

Vice-Presidents

**G. C. BUZBY**      **HARRY V. DUFFY**      **P. M. FAHRENDORF**  
**EVERET B. TERHUNE**

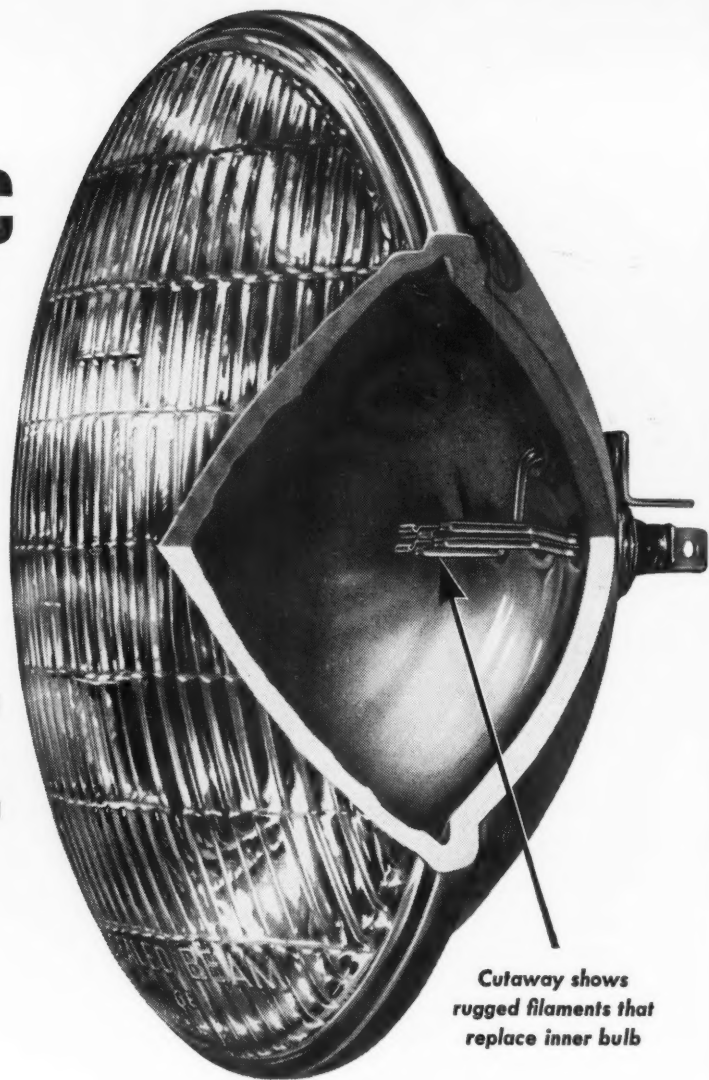
**WILLIAM H. VALLAR**, Treasurer  
**JOHN BLAIR MOFFETT**, Secretary

**GEORGE T. HOOK**      **FRANK P. TIGHE**  
**MAURICE E. COX**      **L. V. ROWLANDS**  
**TOM C. CAMPBELL**      **ROBERT E. McKENNA**

**GEORGE MAISWINKLE**, Asst. Treas.



# General Electric LEAVES OUT THE BULB TO INCREASE THE LIGHT



Cutaway shows  
rugged filaments that  
replace inner bulb

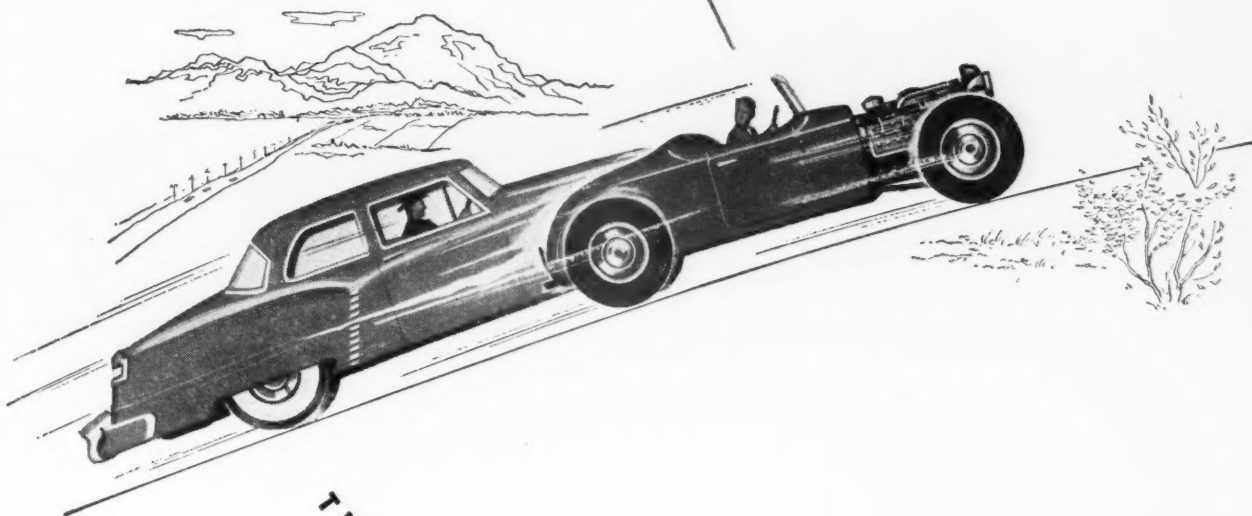
**A**UTO headlamps always used to depend on a small inner bulb for their light. But because this bulb was so small, it was soon covered by black deposits from the burning filament on the inside. The longer the bulb burned—the dimmer it got. Then General Electric found a way to make a headlamp that has *no* inner bulb to blacken. Instead, a G-E sealed beam headlamp is one big bulb, and no matter how long it burns, there's no loss of light. Blackening is no problem. That's why G-E *all-glass* sealed beam headlamps stay bright — give *more light longer!* For better fleet performance and drivers' safety, be sure to install General Electric headlamps.

**G-E All-Glass headlamps DO NOT GROW DIM**

*You can put your confidence in —*

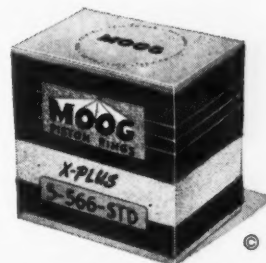
**GENERAL**  **ELECTRIC**

"NEXT TIME GET  
MOOG PISTON RINGS!"



THE WORD IS GETTING AROUND

INSTALL MOOG  
PISTON RINGS...



© 1953 M.I.I.

MOOG INDUSTRIES, INC.  
6650 Easton Ave., St. Louis 14, Mo.

COST LESS . . . SEAT FASTER . . . CONTROL OIL BETTER

**More important  
than ever before . . .**



## **BE SURE THE RODS ARE RIGHT!**



Whatever your connecting rod service needs may be, you'll always find the right answer in the black and red Federal-Mogul package!



● Today's high-horsepower engines put heavy loads on the rods. When you recondition an engine, the rods *must be right*. Out-of-round rod bores soon cause the best of new bearings to fail. Don't take a chance on an *invisible thousandth* . . . that extra thousandth of out-of-roundness can wreck your best work. Use Federal-Mogul exchange insert connecting rod service *on every overhaul!*

### **FEDERAL-MOGUL SERVICE**

(Division of Federal-Mogul Corporation)

**DETROIT 13, MICHIGAN**



**Engine Bearings (Main, Connecting Rod and Camshaft) • Bushings • Connecting Rod Service — Exchange Insert Rods, Rebabbitted Rods • Connecting Rod Bolts and Nuts • V-Seam Piston Pin Bushings • Shims and Shim Stock**



# Right for the Job!

## DELCO-REMY EXTRA-OUTPUT GENERATORS AND MATCHING REGULATORS

(Medium Duty—40 and 50 Amperes)

Delco-Remy extra-output generators are an economical answer to the electrical needs of cruising taxicabs, suburban police cars, rural mail cars . . . other vehicles with additional lights, two-way radios, special electrical equipment in moderate to heavy-duty service. For this type of operation, these Delco-Remy extra-output generators offer the triple advantages of low initial cost, simple installation and economical maintenance.

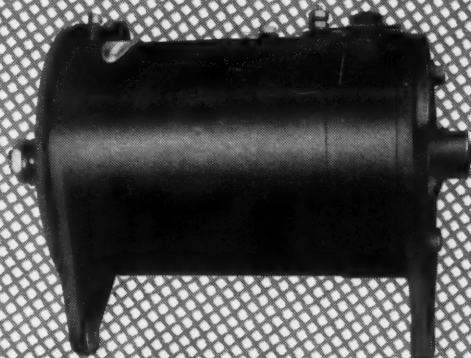
**DELCO-REMY 40-AMP. GENERATOR** has low cut-in . . . charges at curb idle from 11 to 17 amperes . . . attains full output at 18 mph when using a three-inch pulley.

**DELCO-REMY 50-AMP. GENERATOR** has slightly higher cut-in, about 9 mph . . . attains full output at 19 mph . . . for vehicles customarily operating at higher speeds, with minimum of slow driving.

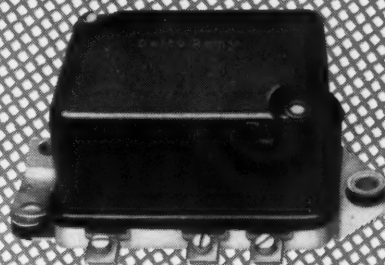
See your nearest United Motors wholesaler for further information and application data.

WHEREVER WHEELS TURN OR PROPELLERS SPIN

Chilton's MOTOR AGE, May, 1953



D.C. GENERATOR



REGULATOR

A GENERAL MOTORS PRODUCT  A UNITED MOTORS LINE  
DISTRIBUTED BY WHOLESALERS EVERYWHERE

## DELCO-REMY

Division, General Motors Corporation  
Anderson, Indiana



*Mr. Geo. H. H. H.*

PRESIDENT  
FULTON CONWAY & COMPANY  
LOUISVILLE, KENTUCKY

YOU'RE W

*Gilchrist*

"PRE-SELLING of the customer is one of the big reasons why we rate the Auto-Lite Battery line aced high," says Morris Whitley.

"In our business you don't very often find the sales promotion that Auto-Lite offers. Original equipment, national television and radio, pace-setting na-

tional magazine and farm paper ads and the fast-growing 'Operator 25' service all help to pre-sell customers day in and day out.

"With the extra profits dealers get from the premium 'Sta-ful,' we find our business booming."

# AUTO-LITE BATTERIES

OUR WAYS RIGHT WITH AUTO-LITE





**There is no substitute for  
the car owner acceptance**

**Raybestos** enjoys

Every survey proves that more people know Raybestos than any other brand of brake lining. It's a selling advantage for you created by 38 years of consistent advertising to your customers. This year again, a hard-hitting campaign in the POST and FARM JOURNAL will urge car owners to pay just pennies more for the safer, surer stops and longer lining life provided by Raybestos PG Sets. They are factory packaged in the right combinations for every make and model of car. Use this Raybestos quality—it's backed by exhaustive Proving Ground tests—and the famous Raybestos Brake Certificate to build yourself a better, more profitable, service reputation.



**LINED BRAKE SHOES or BOXED SETS**  
in the correct brake lining combinations for every make and model of car. Bonded or riveted. Every piece branded for your protection.

**CONSISTENTLY ADVERTISED IN THE  
POST AND Farm Journal**

**DON'T BUY INFERIOR BRAKE LINING. IT'S DANGEROUS!**

Reline with  
**Raybestos** **PG SETS**  
**AMERICA'S BIGGEST SELLING BRAKE LINING**



**RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., Bridgeport, Conn.**  
RAYBESTOS-MANHATTAN, INC., Manufacturers of Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Hose • Industrial Rubber Products  
Rubber Covered Equipment • Asbestos Textiles • Teflon Products • Packings • Sintered Metal Products • Abrasive and Diamond Wheels • Bowling Balls

# Replace—

# WORN CARBURETORS

with a

# NEW

# STROMBERG

*The Quality Carburetor*

## Easy to stock

Now you can stock and sell—in small space and at a small investment—a Stromberg for almost every car and light truck on the road. The entire line of Stromberg\* quality carburetors has been streamlined and simplified. Dozens of models have been condensed into just a few. For example, you need carry only four Stromberg models to replace the carburetor on practically any Ford car—V-8 or 6 cylinder—or truck built since 1934. So you see, with the new Stromberg line a few models go a long way. And what's more, by selling new, proven Stromberg replacement carburetors you eliminate your trade-in troubles and exchange parts problems. Get the facts today about the exclusive Stromberg plan.

\*REG. U. S. PAT. OFF.



**Better Carburetion Saves Gas**

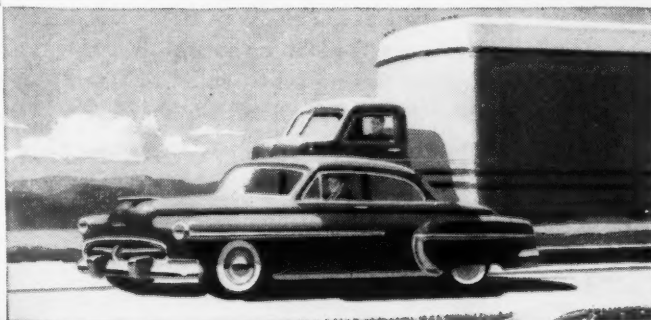
**STROMBERG  
CARBURETORS**

## Easy to sell

It's as easy to sell Stromberg carburetors as it is batteries. You can take your customer right up to the Stromberg wall poster we furnish you and show him *how* carburetors wear out, *what* wear does to economy and performance, *why* a new Stromberg and tune-up stops waste of gas and power.

## Special Starter Stock Offer

Cash in on the Stromberg plan today! Find out how little a starter stock costs covering most models of Ford, Plymouth and Chevrolet. Send for the facts about this streamline, profit-making plan—or see your jobber.



Replacement  
Carburetors—  
Repair Kits



Hydrovac® Power  
Brake—Trailer Power  
Braking Systems



Original  
Equipment  
on most cars



Cold Immersion  
Parts Cleaner saves  
time and money

**Bendix SOUTH BEND**  
INDIANA  
PRODUCTS DIVISION

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.  
Canadian Sales: Bendix-Eclipse of Canada, Ltd., Windsor, Ontario, Canada



# Now... YOU CAN STOCK *ONE* HOLLEY CARBURETOR MODEL FOR *ALL* 1934-52 FORD V-8's

## NEW HOLLEY 2100 HAS IMPROVED DESIGN

The new Holley Model 2100 is now the authorized replacement carburetor for all 1934-52 eight cylinder Ford passenger cars and 1939-48 Mercurys.

Previously, as many as six different carburetor models had to be stocked for this huge Ford market—a market which has more than seven million on-the-road prospects.

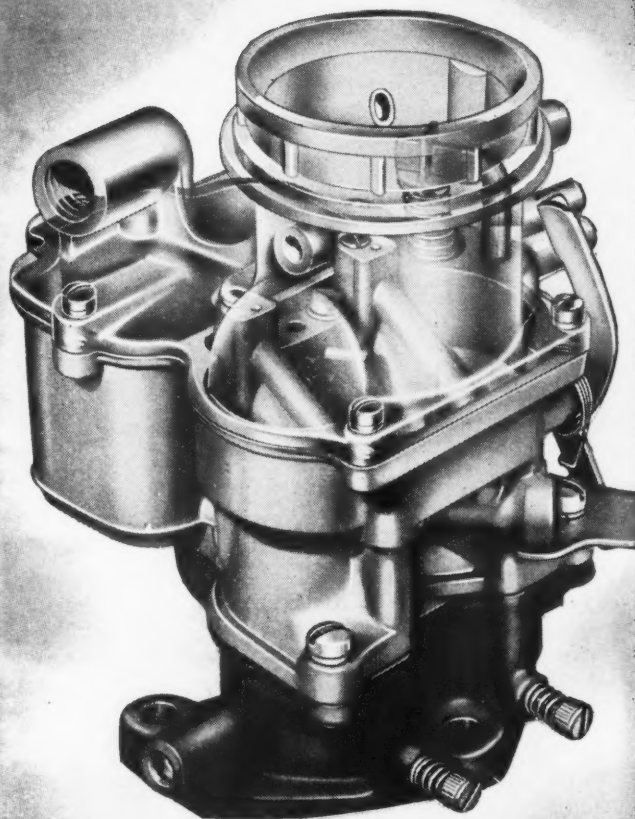
The Model 2100 has several important new design and engineering changes. High lift nozzle bars improve engine performance at extreme angles, and eliminate percolation or "vapor lock."

Servicemen are offered a choice of two conversion methods. The 2100 may be installed using parts from the old carburetor (without exception these parts are not subject to wear) or the serviceman may purchase a conversion kit of new parts.

A truck model, covering all 1942-48 Ford eight cylinder trucks is also available.



Phantom view of Holley Model 2100 carburetor shows new high lift nozzle bars.



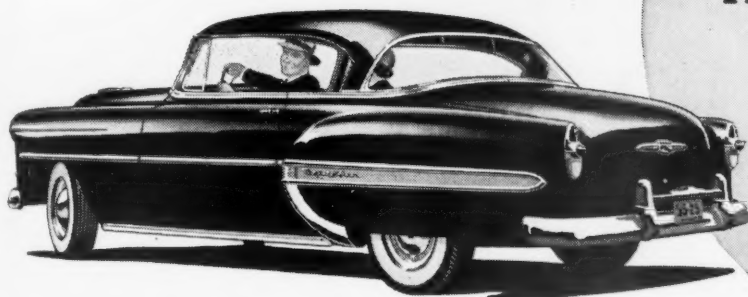
FOR MORE THAN HALF A CENTURY ORIGINAL EQUIPMENT MANUFACTURERS FOR THE AUTOMOTIVE INDUSTRY

5930 VANCOUVER AVENUE, DETROIT 4, MICHIGAN



Chevrolet  
dealers have  
**everything**  
for even greater  
leadership

including the  
first power steering  
in the  
low-price  
field.



now more than ever — *AMERICA'S LEADING FRANCHISE*



*AMERICA'S LEADING DEALERS*

CHEVROLET DIVISION OF GENERAL MOTORS, DETROIT 2, MICHIGAN

# With *Porto-Power* ... change from push to pull faster!

## Before you buy...try this 5-second test

Yes, it takes less than 5 seconds to change from a "Porto-Power" general-type ram to a specialized "pull" ram. There's no time-consuming pumping back of the plunger. Only one hose. You pull with FULL power — and the same hose and pump serve both rams. And thanks to the "Porto-Power" principle, combinations are lighter, handier, more flexible.

Compare all hydraulic body jacks — and you'll buy Blackhawk. You change faster from push to pull set-ups. And, you'll WORK faster with the set-up when it's on the job!



## You can push or pull more ways, too!

Big money-makers in the body shop business know it's smart to equip with Blackhawk "Porto-Power." Why? Because, first, it's the *only* complete line of hydraulic body jack equipment — with rams and attachments for every body style. And, second, its push-or-pull features were designed with the advice and approval of professional body men. These differences mean lower initial costs . . . big-time savings . . . better work. So, go after the big money — equip with "Porto-Power"! See your Blackhawk jobber.

"Porto-Power" is the exclusive (trademark registered) product of Blackhawk Mfg. Co., Dept. P-653, Milwaukee 1, Wisconsin.

# BLACKHAWK®

## and...PULL with a "PUSH" ram also



Sure, Blackhawk gives you specialized rams — one for pulling, others for spreading. But you can also get a full-power PULL with a general-purpose Blackhawk ram by using standard attachments. All Blackhawk rams are *single-acting!* With "Spee-D-Coupler" you can make a quick switch to any of these rams in 5 seconds!

**FIRST CHOICE**  
in over 90%  
of all body  
shops

**PORTO POWER**  
IS PROFIT POWER

Remember . . . to spread, clamp, press, bend, push or pull — there's no substitute for "Porto-Power."

# 'A Babe in a Bathing Suit

**taught me how to sell more Purolators"**

"You know," thinks back Dealer Sam Smith, "it all started last summer down at the lake when I saw a beautiful number getting herself weighed.

"I was looking at her, as who wouldn't, when that weighing business rang a bell with me . . . Why not weigh a dirty refill right out of an engine—balance it up with a clean one . . . show how much stuff a refill really picks up?

"Well, I did just that; found the refill had picked up 2 lbs. of sludge. So I made me a display . . .



"Now my customers stop and look. And that's my chance to check their filter . . . to show them the dirty mess that's there in their own refills.



"As a matter of fact, lots of 'em depend on me to put in a new refill whenever they come in for an oil change. They understand now what a clean Purolator\* refill does."



"Now that people see my display, we're filter checking almost every car that comes in—and, what's more, selling, most every car we check.

## NO. 1... WITH EVERYONE!

**No. 1 in design . . .** Removes more dirt faster—including particles so small they're measured in microns, that's 39 millionths of an inch . . . leaves important additives in.

**No. 1 in the way it sells . . .** Protective Jacket with New DIRT-CHECK Windows speeds Filter-Check, makes sales come faster, easier.

PUROLATOR PRODUCTS, INC.  
Rahway, New Jersey, and  
Toronto, Ontario, Canada

\*Reg. U.S. Pat. Off.



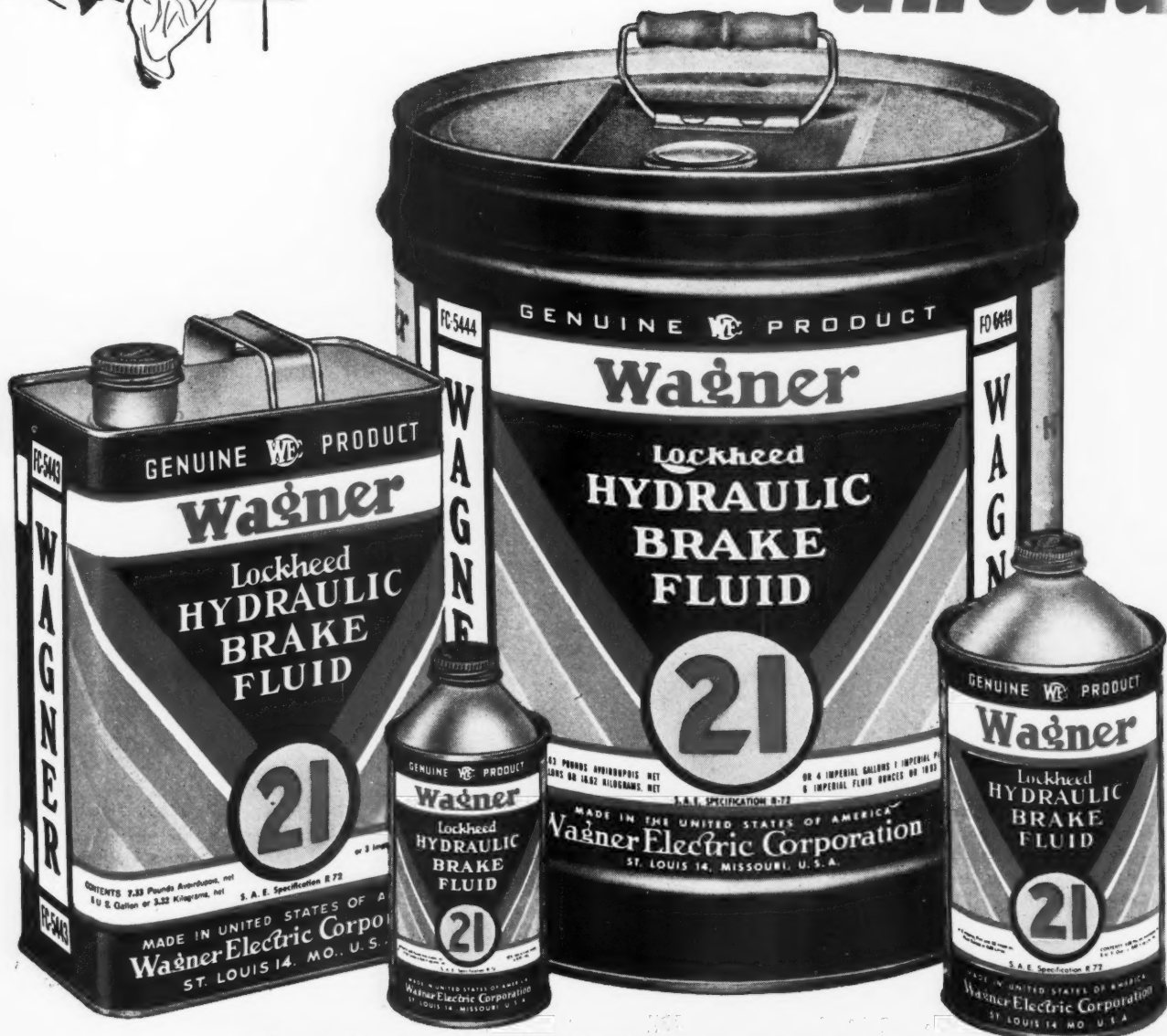
# PUROLATOR MICRONIC OIL FILTER

(ENGINEERED FOR EVERY MAKE OF CAR)





**Don't YOU  
ahead**



**You can depend upon WAGNER QUALITY because Wagner Products are used as original equipment by automobile, truck, trailer and bus manufacturers.**

**Wagner**

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID • NoRoL • CoMaX BRAKE LINING • AIR BRAKES



# *put low price of Safety...*



## **use genuine WAGNER LOCKHEED HYDRAULIC BRAKE FLUID**

Don't "booby trap" your customers' cars with inferior brake fluid . . . for the sake of a few pennies. The ultimate cost might be reckoned in terms of demolished cars, serious injury or even death.

Fulfill your customers' trust! Standardize on genuine Wagner Lockheed Hydraulic Brake Fluid . . . the leader since the introduction of hydraulic brakes. This top quality product is chemically balanced . . . exceeds S. A. E. specifications. It offers safe, sure, all-season protection against such brake fluid "booby traps" as:—vapor locks, freeze-ups, inability to absorb moisture, swelling of rubber parts,

See your nearest Wagner jobber or write us for details.

improper lubrication of working parts, rust and corrosion of metal parts, gummy residue on moving parts, inability to mix properly with other approved brake fluids.

Wagner Lockheed Hydraulic Brake Fluid No. 21 is for passenger cars operating under moderate conditions. No. 21-B is for trucks, tractors and buses under extreme operating conditions, and for passenger cars where a heavy-duty fluid is recommended.

*...the best known  
name in brake service*

**WAGNER ELECTRIC CORPORATION**  
Dept. SPD, 6498 Plymouth Ave.  
St. Louis 14, Missouri

**Here's My Dollar . . .** Send me a copy of the New **BRAKE SERVICE MANUAL**, the most helpful, complete brake service guide ever published—50 pages of valuable information and over 200 "how-to-do-it" illustrations.

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



H53-7



TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS

INDUSTRIAL CRANE BRIDGE BRAKES

## Exciting to readers



**Four-F with the draft board**, he's been rescuing mountain climbers for 17 years! He's Ome Daiber of Seattle, the subject of William L. Worden's article in the May 2 issue of *The Saturday Evening Post*. It's the sort of exciting, human reporting millions enjoy every week in the *Post*.



**She had class.** She had money. So she became a lady cop! Then she and Lieutenant Bill Tyne were jumped by the toughest teen-age gang in the city. She's the heroine of John Reese's latest story. The *Post's* top-flight fiction is one reason why it leads on newsstands.

## Rewarding to sellers



**Build confidence and repeat business** by selling *Post*-advertised TBA products. They are your fastest-moving lines. This seal (left) tells customers they can rely on you for top-flight brands and service.



**The Saturday Evening POST - gets to the heart of America**

**Surveys among readers of leading weekly magazines show:** ▶ Readers spend more time with the *Post*, return to it more often. ▶ Readers believe the *Post* is more reliable. ▶ Readers pay more attention to ads in the *Post*, have more confidence in *Post*-advertised products.

# IS LIFE-OF-CAR BRAKE LINING HERE?

## Can Auto Users Expect 50,000 to 100,000 Miles?

## Can Brake Mechanics NOW Guarantee 40,000 to 50,000 Miles?



**MOUNTAIN MASTER BRAKE LINING TEST—44,451 MILES—**  
 1/3 WEAR TEST CAR: Chrysler 1950 "TOWN & COUNTRY."  
 Original thickness of lining above rivet heads .125 illustrated by shoes 1 and 3. Average wear .042 or 33 1/3% after 44,451 miles, illustrated by shoes 2 and 4. LIFE EXPECTANCY with same wear factor 120,000 miles. Those are facts—not fiction.

The tremendous and ever increasing demand for LASCO SUPER BLOX brake materials, in spite of higher prices, over a period of 10 years has testified to the superior quality over all others in performance and economy

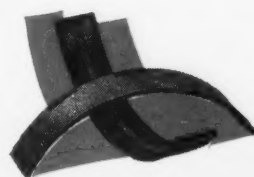
NOW COMES THE PROOF from all sides that LASCO SUPER MOUNTAIN MASTER TYPE LASTS from 50 to 100 thousand miles on 90% of all automobiles—and even that tremendous mileage is by no means the limit.

SEE BRAKE SHOES with lining on left, with fractions worn and original thickness of lining. THESE SHOES and LASCO MOUNTAIN MASTER LINING were taken from a heavy 1950 Town & Country Chrysler with 44,500 miles. PLEASE NOTE lining is 1/3 worn out and on this wear basis would run 120,000 miles. Hundreds of similar records are on file and proof will be cheerfully given to any interested investigator.

### WRITTEN GUARANTEE ISSUED

No brake adjustment after installation of LASCO SUPER BLOX MOUNTAIN MASTER TYPE in 15,000 miles is common on passenger cars, and LASCO brake shops will hereafter issue mileage guarantees on all SUPER BLOX reline jobs for passenger cars in normal use up to 50,000 miles.

ASK ABOUT THIS PHENOMENAL BRAKE MATERIAL



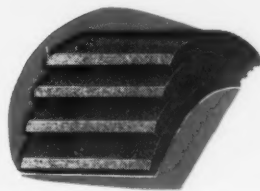
BONDING BLOX



DRILLED SEGMENTS



BONDED SHOES



DRILLED BLOX



### LASCO BRAKE PRODUCTS CORP., LTD.

**St. Louis**  
2131 Locust St.

**Oakland**  
2615 Magnolia St.

**Pittsburgh**  
5157 Liberty Ave.

**Memphis**  
300 Madison Ave.

**Kansas City**  
1630 McGee St.

**Los Angeles**  
807 E. 8th St.

**FORT WORTH**  
910 Florence St.

**SAN FRANCISCO**  
98 - 12th St.

**SALT LAKE CITY**  
541 So. State St.

**SEATTLE**  
714 E. Pike St.

**PORTLAND**  
N.W. 15th & Davis

**SPOKANE**  
1319 W. Second Ave.

**SACRAMENTO**  
1217 - 16th St.

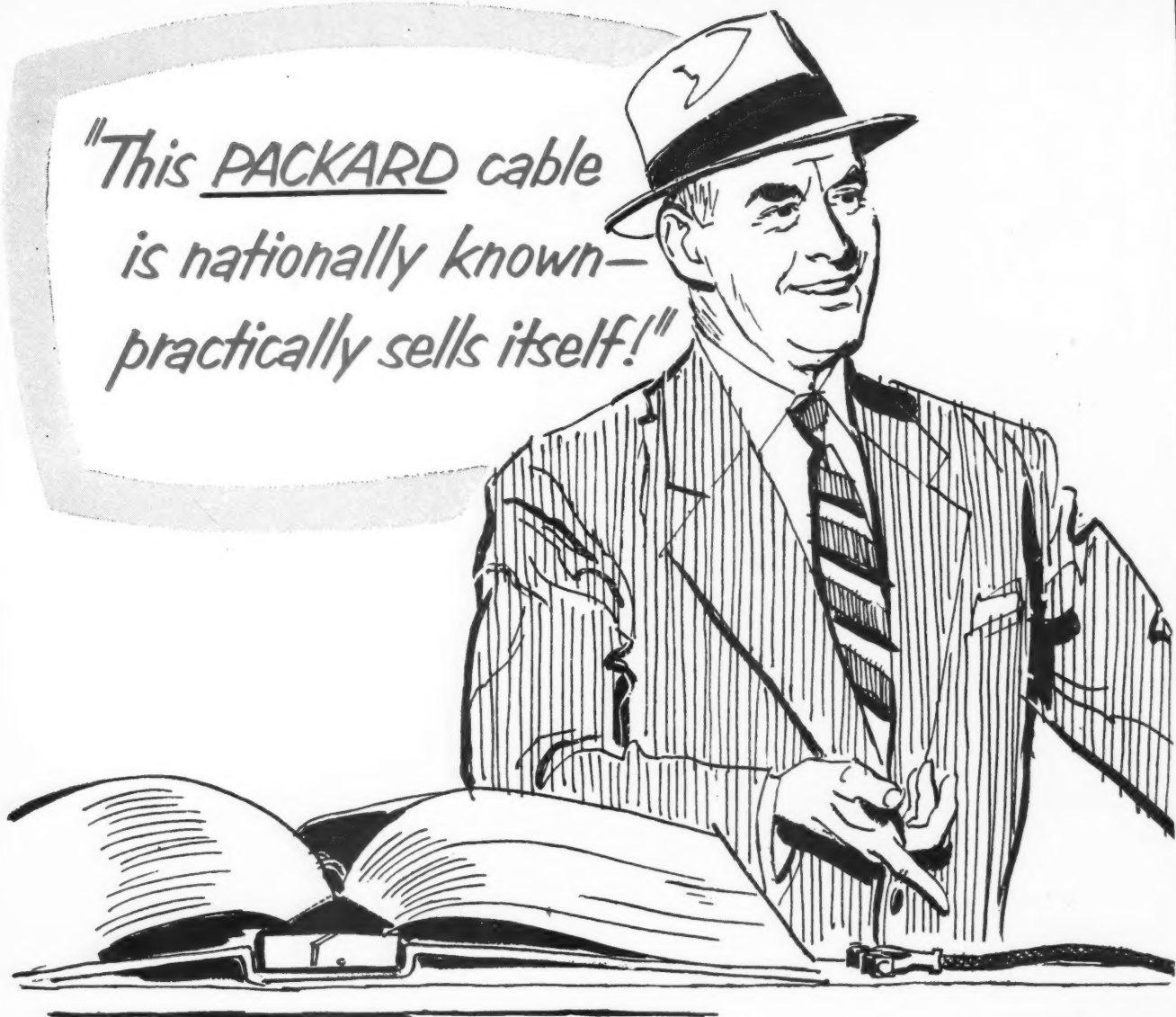
### LAHER INDUSTRIES



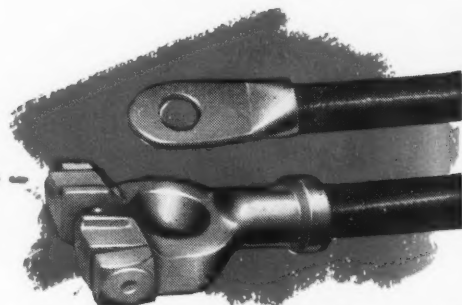
LAHER TIRE & RUBBER CO., INC. • LAHER BATTERY PRODUCTION CORP. • LAHER SPRING & TIRE CORP. • LASCO BRAKE PRODUCTS CORP., LTD.



*"This PACKARD cable  
is nationally known—  
practically sells itself!"*



*Build up your business  
with the "BIG 3"  
in the cable field!*



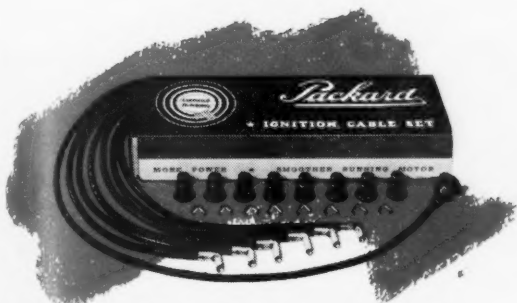
The record shows that Packard cable is preferred by automotive engineers for cars, trucks, buses and tractors. Preferred, too, by vehicle owners and repair shops for replacement use. And preferred by jobbers and dealers because it has a quick turnover.

**PACKARD BATTERY CABLE**—Packard battery cables are used as original equipment on more cars, trucks, buses and tractors than cables of any other make. Packard battery cables are full size, full weight . . . are available with **LEADALLOY** terminals or leaded brass terminals. Both types are packaged in individual cartons—both deliver top performance—both have acceptance, everywhere.

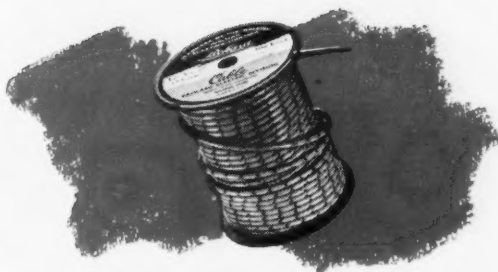
**FOREMOST BUILDER OF AUTOMOTIVE WIRING**



*"You're telling me!—  
I've used nothing else  
for years!"*



**PACKARD IGNITION CABLE**—Long considered the standard of the automotive industry, Packard high-tension cable is original equipment on more cars, trucks, buses and tractors than any other cable. Packard **FOUR-FORTY** and Packard **LAC-KARD** ignition cables are designed to deliver balanced performance in every application. For dependability on the job, choose Packard!



**PACKARD LOW-TENSION CABLE**—As with Packard's two other products, Packard low-tension cable is used as original equipment on more cars, trucks, buses and tractors than cable of any other make. Packard's **249 COMPOUND** insulation, by every laboratory test and by the test of long, hard usage in the field, has exceptional resistance to heat, oil, chemicals and abrasion.

**Packard**  
REG. U.S. PAT. OFF.  
TRADE MARK

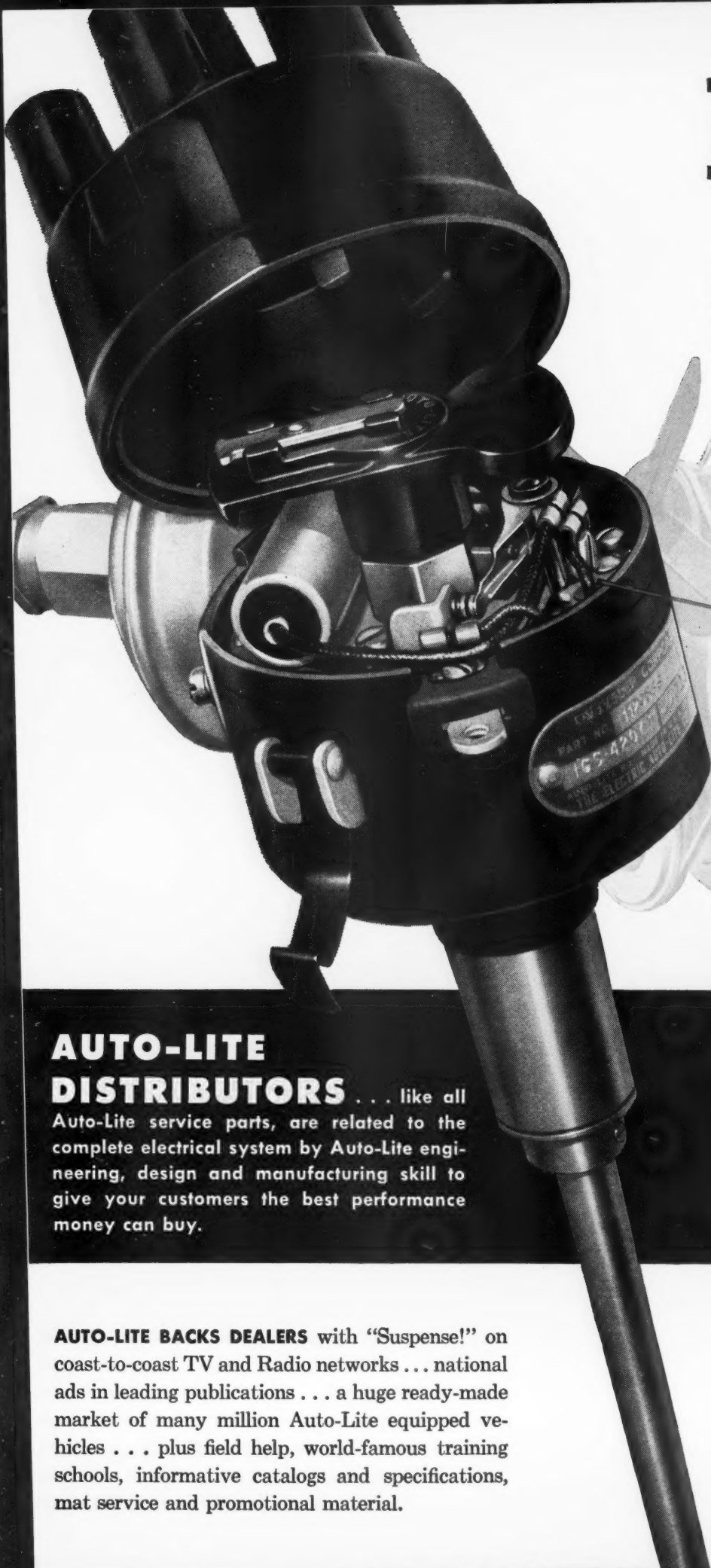
Packard Electric Division  
General Motors Corporation  
Warren, Ohio

A GENERAL MOTORS PRODUCT



A UNITED MOTORS LINE

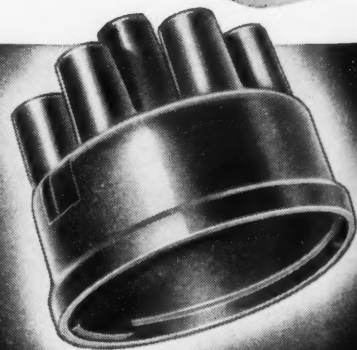
# How to



## AUTO-LITE DISTRIBUTORS

... like all Auto-Lite service parts, are related to the complete electrical system by Auto-Lite engineering, design and manufacturing skill to give your customers the best performance money can buy.

**AUTO-LITE BACKS DEALERS** with "Suspense!" on coast-to-coast TV and Radio networks ... national ads in leading publications ... a huge ready-made market of many million Auto-Lite equipped vehicles ... plus field help, world-famous training schools, informative catalogs and specifications, mat service and promotional material.



**AUTO-LITE CAP** has many added features that mean outstanding performance for your customers. The cap is made of a special phenolic material carefully selected for its arc-resistant qualities. It also resists severe temperature changes encountered under the hood during normal engine operation. Ribs inside the cap reduce tendency for flash-over—minimizing the old hard-starting bugaboo in frosty or damp weather.

# win new customers and keep old ones happy!

## MATCH YOUR HONEST WORKMANSHIP WITH THE QUALITY OF ORIGINAL SERVICE PARTS

THROUGH constant improvement and development . . . through use of the best, and often more costly, design, manufacture and materials . . . Auto-Lite automotive electrical systems, and the parts in the system, have set new standards of quality.

This quality is important to you! It protects your honest workmanship . . . assures you greater customer satisfaction . . . builds future business from repeat sales. Whether it's coils, condensers, voltage regulators, generator brushes . . . or complete electrical systems . . . when you check detail by detail, you know Auto-Lite quality cannot be beat!

More than half of America's car makers specify Auto-Lite. When servicing Auto-Lite equipped cars, be sure to recommend

and install Auto-Lite Original Service Parts. And display the Auto-Lite Original Service Parts sign.

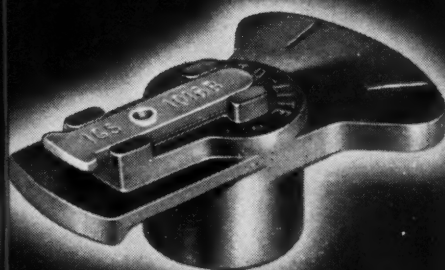
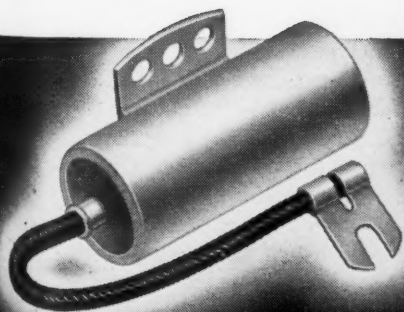
**THE ELECTRIC AUTO-LITE COMPANY**

*Parts & Service Division*

Toledo 1

Ohio

This sign identifies you as a source of Auto-Lite Original Service Parts



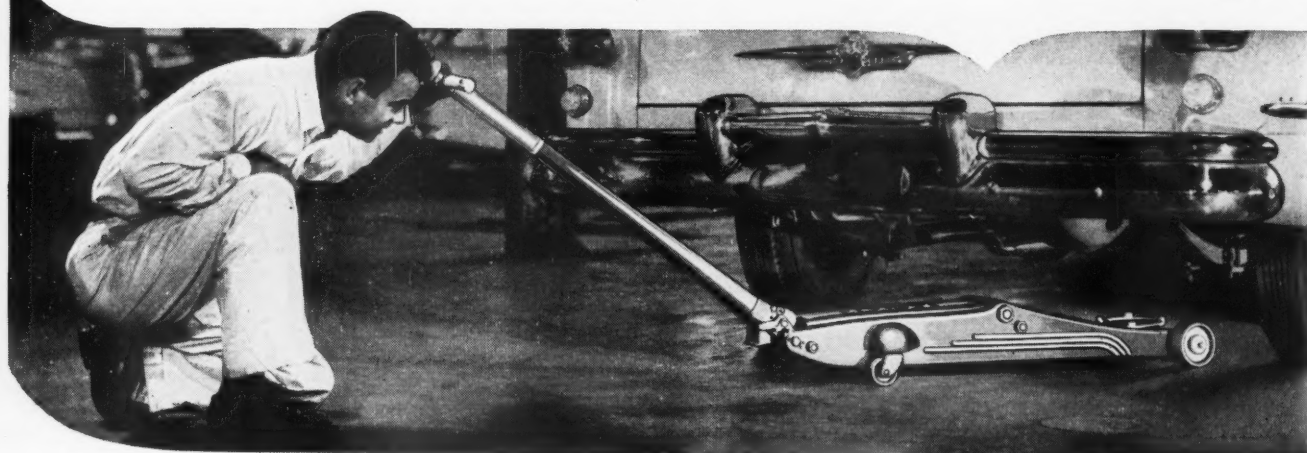
**AUTO-LITE CONDENSER** demonstrates Auto-Lite's determination to spare no effort for top quality. Condenser windings are held in a vacuum before and during submerging in hot wax, to force wax into every crack and crevice. This provides a moisture-free unit. Special high voltage condenser is designed to provide protection against extreme voltage surges from unusual service conditions, such as loose spark plug wires.

**AUTO-LITE CONTACT SET** is a typical example of how Auto-Lite Ignition Engineering helps provide best performance. Contacts are pure tungsten to better withstand arc temperatures as high as 3500° F. Both metal-grain and hardness are carefully controlled to withstand pounding. In torture tests, original Auto-Lite breaker arms have an average fatigue-factor as high as 24-1 compared to some replacement parts tested.

**AUTO-LITE ROTOR** illustrates advantages of Auto-Lite precision engineering in providing exact clearance necessary between the rotor segments and cap inserts, to prevent breakage. Auto-Lite adds a spring or in some cases three vertical supporting ribs within the rotor to grip the sleeve and insure a tight fit. The ribs also allow for the expansion of the rotor body to maintain uniform concentricity.



# *Sleek! Smooth! Fast! Easy*



## *No wonder they're called Walker Greyhounds!*



Here's the beauty, color, streamlined showmanship that modernize your entire service department, that speak up for speed and efficiency, that give your customers confidence. Here's a new "yardstick" of service jack performance . . . with an extra margin of strength for the unexpected . . . an extra margin of safety for greater protection . . . an extra margin of power when emergency calls.

Here is the famed "Gold Seal" Power Unit for dependability and speed . . . exclusive self-centering "finger-tip" control for trouble-free service . . . automatic "overload" protection for greater safety . . . "flash contact" to reach the load with minimum effort.

Try the Walker Greyhounds for all passenger cars, for all but heaviest trucks and tractors. See how the low, sleek chassis ducks under long, low overhangs. See how the long handle with "pistol grip" control gives greater convenience. Test the quick, sure power raise, with plenty of room for all kinds of work. Look at these deluxe service jacks now. You'll see why they're called the Walker Greyhounds. You'll know they belong in your shop . . . because they cost no more than ordinary jacks.

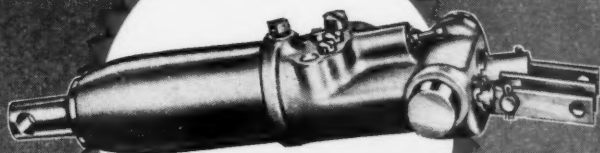


# WALKER

WALKER MANUFACTURING CO. OF WISCONSIN - RACINE, WISCONSIN



# to operate!



## THE NEW "GOLD SEAL" POWER UNIT The Finest Hydraulic Power Mechanism Ever Developed for Service Jacks!

- (1) The revolutionary "I.S.D." Power Cylinder for greater wear resistance and a more positive seal . . .
- (2) An Ingenious new Self-Centering Control Mechanism
- (3) Reciprocating parts precision ground to a tolerance of .0015"
- (4) A new Filtered "Hydra-matic" Relief Valve for longer, safer service.

### "Pistol Grip" Handle



A new, more comfortable molded handle with dual-control knob to control both handle position and release valves, and with "Easy Positioning" Handle Lock to secure the handle in two upright positions for easy positioning in close quarters.

### Plus many other exclusive Walker Features

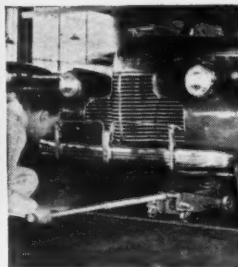
- "Straight-Line" Drive eliminates side strains on the power ram
- "Silent Speed" By-Pass Valve on the booster pump
- "Air-Bound Proofed" Design to prevent lost strokes
- "Flash Contact" with automatic cutout from booster pump to power pump
- Full "Radial Thrust" Casters
- Dirt Sealed Front Wheels
- Giant Saucer Lifting Cap to handle all types of jobs

# leads in JACKS

Jacks • Exhaust Silencers • Oil Filters

## What's News at Walker

It's true! Only Walker offers a complete line of jacks for every vehicle and every job. Your Walker distributor has the famous Walker *Greyhounds* shown here. See him, and try them, for a great new standard of service jack performance. And while you're looking, see the Walker *Whippets* for quick service on floor or driveway . . . the No. 780 for heavy-duty service . . . the rugged *Series 900* portable hydraulics (8 models—from 1½ to 50 tons) . . . and all these other Walker values!



### "You can whip it with a WHIPPET"

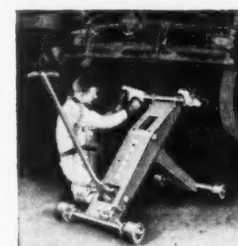
. . . say mechanics everywhere. This quick service jack has a 48-inch "Handy Handle" for easy handling, positive control of lowering. Its rigidized "Dreadnaught" Steel Chassis resists twisting and weaving under load. And its "Blue Seal"

3,000 lb. capacity all-steel hydraulic power unit assures a long life of smooth, trouble-free operation. No. 867 with "Radial Thrust" Casters at rear. No. 857, same with wheels at rear.

### New Walker Transmission Jack Speeds Shop Work



No. 44 Uni-Cradle handles all automatic transmissions (including Chevrolet "Powerglide") . . . raises and lowers transmission with "Micrometer" accuracy . . . tilts it through a 92° arc . . . "Axis-Rotates" it for accurate, more positive alignment.



### Another Service Speeder— the famous Walker No. 76

The first completely self-powered, portable hydraulic one-end lift for all types of under-car service. Often serves as an extra lift when complete lift installation is impractical.

### Try 'Em on Your Customers!

And for extra profits without extra effort, put these Walker Passenger Car Jacks in your favorite window. Your customers can't keep from trying the new Walker 400—America's easiest-to-use, safest-to-use bumper jack. They'll try . . . and buy . . . the convenient, easy operating "647," the finest of all mechanical bumper jacks. Show Walker Jacks and Accessories for good year-round plus-profits.



No. 400 No. 647



Your Walker distributor is  
**JACK HEADQUARTERS**



**"AFTER 153,647 MILES\***

**Exide Ultra Start is still going strong!"**

\*As of April 1, 1953



"It has lasted five times as long as any previous battery—has outlasted the service life of two cars and is now in its third—has had no recharge. Our patrol cars work 24 hours a day and have such extra electrical equipment as sirens, flashing lights and two-way radio."

**Frank R. Whitten, Chief  
South Portland (Maine) Police Dept.**



EVERYBODY'S TALKING about the sensational new Exide Ultra Start battery. Police departments, taxicab companies, and truck operators have hailed its extra ruggedness...extra long life...exceptional reliability.

Think what Ultra Start's record in hard service means to the car owner who wants a battery

that assures both dependability and long life!

Go to your nearest Exide dealer today. Let him give you a free battery test and tell you more about the amazing new features of this rugged, longer lasting Ultra Start battery. The Electric Storage Battery Company, Philadelphia 2, Pa. Exide Batteries of Canada, Limited, Toronto.

**WHEN IT'S AN Exide...YOU START**

"EXIDE" and "ULTRA START", Reg. T. M. U. S. Pat. Off.

# 153,647 MILES\*

ON THIS BATTERY... *THAT'S NEWS...*

## *THAT'S* Exide ULTRA START

\*as of April 1, 1953

The millions of motorists who read Life, Time and The Saturday Evening Post will see this amazing battery story.

In 1951, when the Exide Ultra Start was introduced, we hesitated to predict how long it would last. We sincerely believed that the Ultra Start was the best battery ever to hit the market. Reports coming in from all over the country are proving we were right.

Here in this full-page Exide advertisement is the story about a stock Ultra Start that has outlasted 2 police cars... without recharging... and is still on the job in a third car.

If you're not already handling Exide batteries, switch to Exide now. Be one of the Exide dealers who will tell their customers the convincing story of the Ultra Start battery that served in 3 police cars and is still on the job. Cash in on Ultra Start... its advertising... its acceptance. The Exide line is a money maker.

**See the Exide distributor today.**

THE ELECTRIC STORAGE BATTERY COMPANY  
Philadelphia 2

*Exide Batteries of Canada, Limited, Toronto*

"EXIDE" and "ULTRA START," Reg. T.M. U.S. Pat. Off.

**IT'S GOOD TO BE AN EXIDE DEALER**



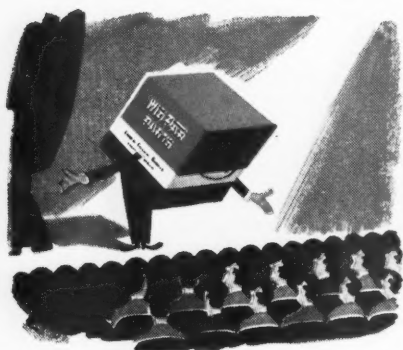
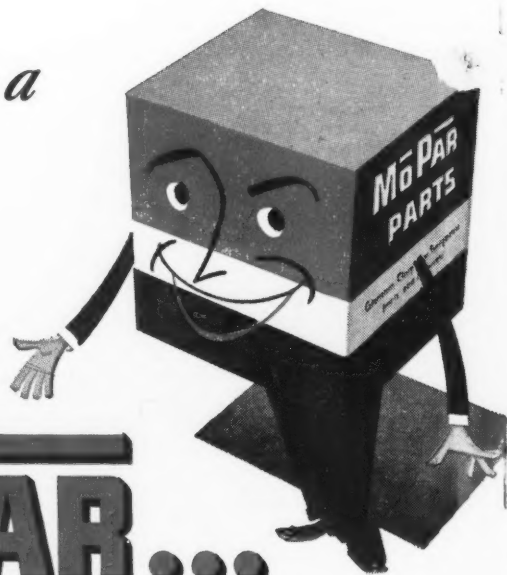
# 4 things everyone who services a Plymouth... Dodge De Soto... Chrysler Dodge "Job-Rated" Truck

Should know about

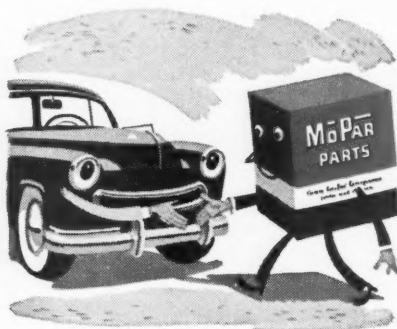
## MOPAR...

TRADE MARK

*genuine Chrysler Corporation Parts and Accessories*



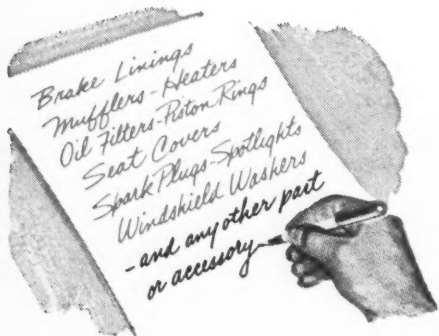
**1** Engineered specially for these cars and trucks by the people who built them.



**2** Made to the same high standards as original equipment ... to fit right ... work right.



**3** Designed to maintain top performance. Always specify genuine MoPar parts.

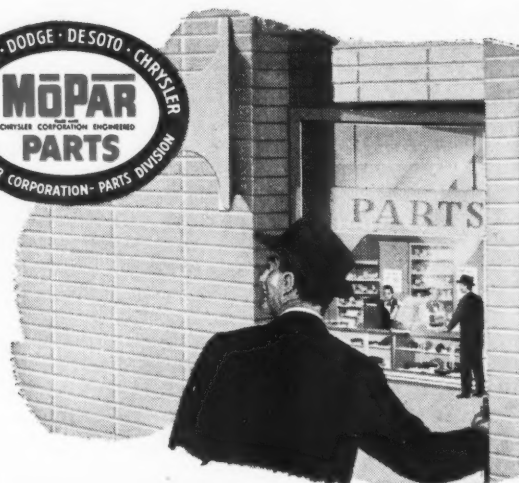


**4** Whatever you may need, there is a genuine MoPar part available.

Display the  
MOPAR sign



to let people know you recommend and install MoPar parts. For details, write Chrysler Corporation, Parts Division, Advertising Department, Detroit 31, Michigan.



**CHRYSLER CORPORATION • PARTS DIVISION • DETROIT, MICHIGAN**



**It takes all kinds of customers...**

BY **Howard**



**but they all want the best. When it's bearings, just tell 'em it's *TIMKEN®*!**

Customers never forget a bad job—or a good one. One way to let 'em know they're getting the best is to show them the trade-mark "Timken" whenever you install a new tapered roller bearing. It'll help bring customers back when they need service again. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

**TIMKEN** **TAPERED ROLLER BEARINGS**  
TRADE-MARK REG. U. S. PAT. OFF.



NOT JUST A BALL ○ NOT JUST A ROLLER □ THE TIMKEN TAPERED ROLLER □ BEARING TAKES RADIAL AND THRUST → ← LOADS OR ANY COMBINATION → ←

**THERE ARE SEVERAL  
GOOD MAKES OF OIL FILTERS  
*Otherwise* car manufacturers  
would not use them as  
original factory equipment**

*And*

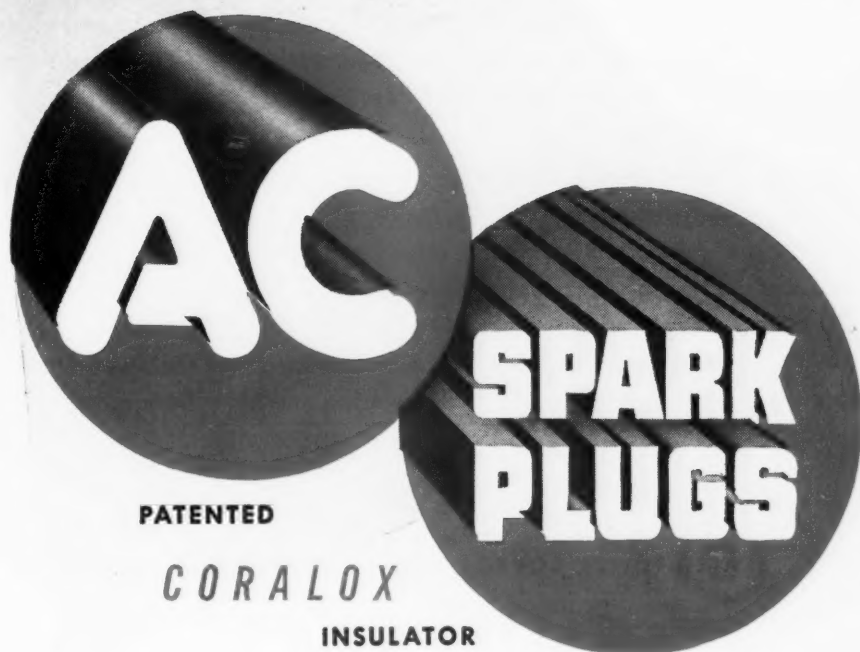


**ARE ON MORE NEW CARS  
THAN ANY OTHER BRAND**



# ONLY SPARK PLUG WITH PATENTED CORALOX INSULATOR

**Original Equipment on  
nearly as many new cars as  
all other makes combined**



AC SPARK PLUG DIVISION



GENERAL MOTORS CORPORATION





Dozens of makes of rings feature

# CHROME

but no others can match

## Sealed Power KromeX

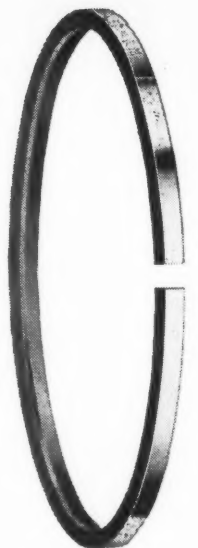
### FULL-FLOW RING SETS

Only Sealed Power can apply Sealed Power's gleaming, factory-lapped solid chrome face to Sealed Power's top compression ring of special chrome-alloy cast iron, with Sealed Power's famous Granoseal finish on the sides, for extra flexibility.

Only Sealed Power can provide the famous Sealed Power MD-50 Steel Oil Ring—the only ring with the FULL-FLOW SPRING—with side rails chrome faced for double mileage and sides Granosealed for flexibility. Hundreds of thousands of cars have proved this ring best for oil control, even in badly tapered and out-of-round bores.

What's more, all rings in Sealed Power KromeX Ring Sets are beveled or tapered to thread-line contact for quick seating and blow-by control.

THAT'S WHY SEALED POWER KROMEX RING SETS HAVE ENJOYED THE FASTEST-GROWING SALES IN PISTON RING HISTORY!



SEALED POWER CORPORATION, MUSKEGON, MICHIGAN



## Sealed Power Piston Rings

BEST IN NEW CARS! BEST IN OLD CARS!



# Newscoop

## "I Cover the Autofront" .....by Len Westrate

LOOK FOR SOME INTERESTING DEVELOPMENTS on brakes within the next year. Chief problems with high speeds and horsepowers on passenger cars is not deceleration rate, but the ability to make repeated highspeed stops without fade. Excessive heat generated causes drums to expand away from the shoe, resulting in loss of pedal, thus impairing grip. One company is experimenting with a special vaned wheel which draws air from underneath the car and across the brake drums. The results are impressive, but nothing yet slated for production.

MORE AUTOMOBILE MANUFACTURERS are getting ready to jump on the power steering bandwagon. Those with definite plans to adopt it soon are Ford, Mercury, Kaiser-Frazer, Hudson, and Dodge. Not all will use the same make unit but all will be of the same general type, i.e., the linkage booster power assist type which mounts under the car and connects to the steering link. One company now using an integral type is redesigning the unit to make it more compact, lower priced.

SERVICE HEADS AMONG GENERAL MOTORS' competitors are almost drooling over the service school program announced by GM. They're all in agreement that it's a long-needed and well-advised move, and are hopeful of selling their own managements on something similar. GM will only build a few centers this year, with all 35 to be completed by the end of 1954. Cost of the project has not been revealed, but it is known to involve several million dollars.

FORD HAS DEFINITE PLANS for another car in its line but is very vague about where it will fall. Most frequent guess is that it will be the Lincoln Continental which has been out of production for several years. There is some speculation that a new model might also be introduced further down the price line. Incidentally, Ford is well aware of the huge success Chevrolet is enjoying with its premium-priced Bel Air line and is thinking about something to meet it. However, it would be another series in the Ford line.

LINCOLN WILL OFFER an air conditioning unit beginning in June. Later, it will be possibly extended to Mercury. The air conditioning system is not a GM or Chrysler unit but one developed in cooperation with a smaller supplier.

YOU JUST CAN'T PLEASE EVERYBODY! Automobile manufacturers have found a sizeable market for tinted glass windshields because customers prefer them for their ability to reduce glare and heat. Owners of drive-in theaters are complaining that the tinted glass distorts black and white pictures and is even worse for viewing colored movies because they mask out the colors. Owners are asking the industry to study the problem and develop a type of glass that will overcome present objections.

PLANS FOR A NATIONAL AUTOMOBILE SHOW staged by the manufacturers have gone glimmering again. Up until recently, chances for a revival of the national show were considered good. When the companies discussed the situation, the consensus was that suitable facilities were not available in New York for the kind of show the industry contemplates and there was little interest in seeking adequate space elsewhere. There had been some opinions that the show might be rotated from city to city in subsequent years, but that idea, too, fell by the wayside.

ONE OF THE LARGER BRAKE manufacturers soon will come out with an accessory package for equipping late model cars with power brakes. The installation will be very similar to that now installed at the factory as an original equipment option.

OPINIONS TO THE CONTRARY, the public in a free market prefers deluxe model automobiles over stripped-down or standard models by a wide margin. Pontiac reports that when its new models were introduced last December, the ratio of deluxe to special models was 12 to 1, and that currently it is running nearly 15-to-1 in favor of the deluxe cars.

WILLYS WILL COME OUT SOON with an automatic transmission for its Aero line. It probably will be a Borg-Warner unit, similar in type to that currently used by Ford.

## Washington Wire .....by Ray M. Stroupe

NINE STATES NOW REQUIRE that new cars and trucks be equipped with turn signals. Five of these put through the requirement this year. The National Highway Users Conference reports that, of the 44 state legislatures meeting this year, two-thirds have measures before them dealing with one or more types of motor vehicle equipment. They include, in addition to turn signals, such items as mud guards on trucks and trailers. In Texas, the legislature is expected to consider a different kind of safety measure, governors to limit auto speeds.

LATEST FIGURES GATHERED by the government show there were 12,460 persons serving apprenticeships in the automotive repair and maintenance trades at the end of 1952. Just over two-thirds of these, or 8,830 men, were learning to be auto mechanics. Those being trained as body repairmen numbered 2,380; automotive electricians, 260; and others, 590. The Labor Dept. says the automotive industry ranks extremely high in proportion of veterans who have become apprentices.



HEARINGS IN CONGRESS may result in a workable plan for sale of the government's synthetic rubber holdings. President Eisenhower has said he believes private business would run the 28 plants properly, on a thrifty basis. He also wants the country to be assured of a sizeable stockpile of natural rubber, backed up by the capacity to make synthetic rubber. Big questions are how to dispose of the plants and who will be allowed to buy them.

## Engineer at the Auto Show ..... A Digest

NEW YORK CITY, N. Y. Leslie H. Middleton, vice-president and director of engineering of the Electric Auto-Lite Company, up to dated a group of writers on current and future developments in the automotive field. Here are some of his comments:

"THE INDUSTRY FINDS ITSELF now in a position of competing with increasing horsepower and increasing speeds and that, of course, necessitates increasing control, brakes, transmissions and electrical devices.... to solve some of the problems that come as power and speeds go up.

THE PRESENT TREND IN BRAKING is electro-hydraulic braking, air cooled, and in some cases, liquid cooled....air cooled brakes, in the beginning, and later, sodium or liquid cooled brakes with an entirely different design of wheel, to permit the release of vacuum at high speeds...."

ON HEADLIGHTS: "The candle-powers that we are using today are entirely inadequate. Work is being done on fluorescent lighting, sodium lighting, and different types of glare control, with the objective being a great deal more light down the highway with a contrast control where light is not solely used for illumination, but is used to bring about a contrast between the road, or the surrounding dark envelope....and the obstruction or person (along the highway)."

ON 12 VOLT VS 6 VOLT SYSTEMS: "A certain group of ignition engineers came to the conclusion that the only way to increase the high voltage and maintain the same amperes through the (contact) points was to double the primary voltage and go to 12 volts ....it now appears that it might not be the way to go....The most important thing to a group of engineers is: what have we accomplished by going to 12 volts? Up to now we have been able to do exactly, identically, as well with the development of a six volt ignition system as we have been able to do with the best 12 volt.

"NEXT YEAR, IN 1954, we will have four engines, high compression engines, at 9 to 1 compression ratio....eight or nine between 8.2 and 8.5 compression....We are going into special fuels, and there will be attempts at fuel injection, a modified system for passenger automobiles.

"IT IS THOUGHT, in some quarters, that the reciprocating engine today has reached its maximum limitation and it is high time that the automotive industry took advantage of....knowledge available in gas turbines, and applied some of it in a modified form to automotive propulsion. We have some of these engines on test....introduction to the public is contemplated in 1955 ....some (perhaps) in 1954."

## New York Sports Notes .....by Art Nellen

MR. AND MRS. JOHN Q. PUBLIC were further exposed to the automobile bug last month in NYC with three shows in progress....Over 180,000 crowded the Waldorf Astoria to view Auto-Lite's Easter Parade of Stars....Herb Shriner packed 'em into Grand Central Palace with his International Motor Sports Show....while across the Hudson at Palisades Park the National Hot Rod and Sports Car Show was thronged.

FOLKS ATTENDING THE SHOWS were not all "hot rodders"....nor were they the "horsey set"....just plain folks, and they were willing to pay up to \$1.50 each to look at America's favorite topic of discussion....cars!

GEORGE ROMNEY, NASH KELVINATOR Corporation's executive vice-president, in an informal meeting with the automotive press, remarked on the trend toward continental styling in some American cars. Romney indicated that Nash's long-awaited NXI Sports car will be in volume production by the end of the year. This car, with an Austin engine, will be a considerable refinement over the prototype which was shown around the country in 1950

## The U. S. Economy .....by Frank A. Bozek

FROM A NATIONWIDE SURVEY just completed by the Commerce Department, most industries expect higher sales volume in 1953 than in 1952. Transportation equipment producers expect sales to be 32 per cent higher than last year; automobile manufacturers, 18 per cent; electrical machinery producers, 14 per cent. Petroleum, food, paper and apparel companies expect sales to be 3 or 4 per cent over last year.

FOR MANY FARM MACHINERY DEALERS the traditional spring buying surge is arriving sporadically or late this year. Distributors are carrying heavy inventories and some large producers have cut production 10 per cent. Blame is laid to drop in farm prices, tighter credit, and last year's drought. (The Iron Age, a Chilton publication.)

ACCORDING TO JOINT FIGURES of the Departments of Commerce and Labor, commercial construction shows the highest increase of any type of building activity, with a 40 per cent jump over 1952 figures so far this year. It is estimated that \$3 billion will be spent by stores in 1953 for building and modernization, deferred because of government controls.

HIGHWAY ACCIDENTS IN THE U. S. last year caused an economic loss of \$3,500,000,000. William H. Brewster, manager of the automobile division of the National Bureau of Casualty Underwriters, told the annual convention of the Greater New York Safety Council.

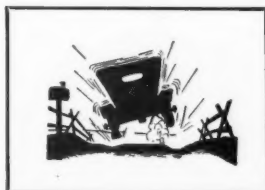
ACCORDING TO "THE ECONOMIST" (London), new U. S. investments in Canada rose from \$78 million in 1948 to \$299 million in 1951. Our Canadian investments now equal our total investments in all Latin American countries.

CITING FIGURES OF THE U. S. Dept. of Commerce, it is noted that 32 of every 100 businesses begun in the last 10 years shut up shop in the first 12 months, and 18 more failed to get through the second year's operation. At the end of seven years, only 22 of the original 100 firms remained.



# ALONG the ROAD

About People and Things You Auto Know



**Mack Avenue, Detroit, 1903:** There were a good many people who referred to the automobile tinkerers of this day as crack-pots (in these modern sci-

entific days, we call them psycho-ceramics!). Yet on this day, a young man, with many, many bright ideas incorporated the Ford Motor Company. Skepticism was rampant. The sister of a man who was to become a great senator from Michigan refused to invest \$200 in the enterprise. Later consented to invest \$100—which in 1919, after collecting \$95,000 in dividends, she sold her \$100 investment for \$260,000!

**This is a story of American enterprise. It has repeated itself over and over again. It will repeat itself as long as America lives.**

This column couldn't contain all of the stories of Mr. Henry Ford, his achievements, his determination to serve the people with a product they could afford; his willingness to fight for principles he believed in, and thereby break what could easily have been a monopoly that would have stunted this industry; his idea of having a stout-hearted, broad-shouldered foreman with a rope tug a Model T chassis down a "line," shorter than a football field, while three men on each side "mass produced" the first automobile in one hour and 33 minutes, when the final assembly would require 14 hours!

**Dearborn, May, 1953:** This month it was the privilege of this writer, with many others, to join with Mr. Henry Ford II in a pilgrimage to retrace the steps of a man with many, many bright ideas. As we have said, it's a story that has repeated itself and will continue to repeat itself as long as American competitive enterprise lives.

**Peoria Ill., 1930:** It was at this time that Cummins & Emerson, automotive wholesalers, invited a young man named Al Laansma to talk to the trade on "Care Will Save Your Car." Last month, the same company with eleven other automotive wholesalers extended the same invitation to your Editor to do the same job! History is worth repeating itself. Eighteen hundred automotive men turned out and we all had a great time. Oh, yes—that fellow Al Laansma represented the old M.E.A. (Motor and Equipment Assn.) and today is advertising representative for MOTOR AGE in Detroit.

**The Back Bay, near Annapolis, Md.:** Boating is a wonderful and friendly sport. Boat owners wave, signal and in general pass good fellowship from one deck to the other. However, once they dock their boats and get into their cars, a mania ensnares them. In an automobile they'll run you off the road. Why are people like that?

And, this is the Motor Age.

*Frank Tigher*  
Editor



# NEW Scene

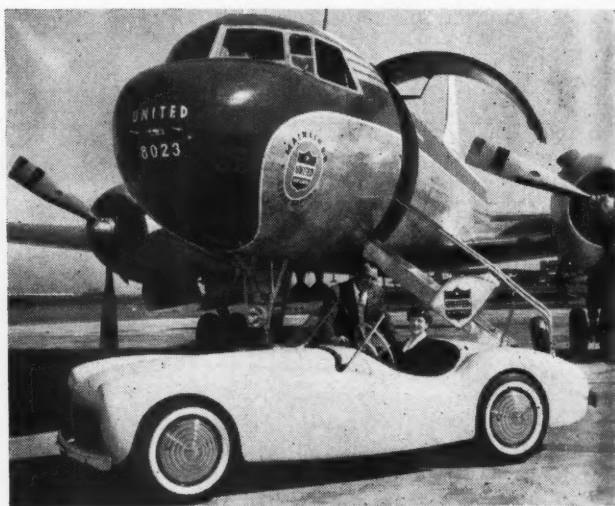


## ◀ One Shattered Window

This drama began when Buddy Burke, 20-months, pushed down knobs locking all four doors after father left car with the keys inside. One hour later, Buddy (center) reads book as bystander forces window. The tot's father embraces him (bottom) as he looks over the shattered window.

## ▶ Debbie in New Role

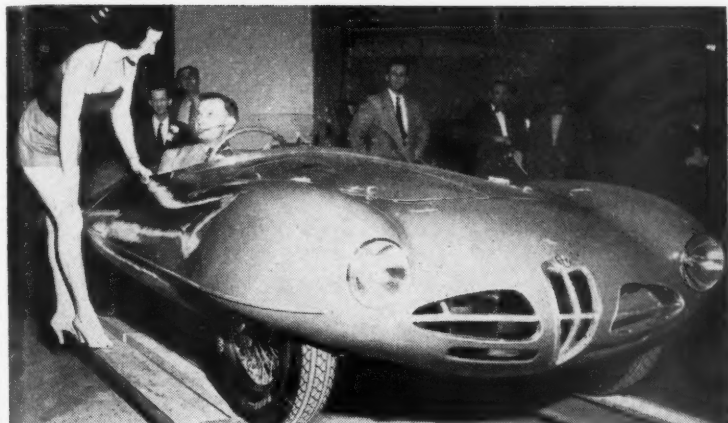
Hollywood movie starlet Debbie Reynolds holds a poster offering sound advice. The Look posters, tying-in with the automotive industry's May safety check program, center around a vehicle maintenance article written by George Koether, Look's Automotive Editor, in the May 5 issue.



## ▲ Sports Car on Review

Paul Strassberger, sports car manufacturer, shows his "Yankee Clipper" to Stewardess Ruth Roberts. Mounted on a 1953 Ford chassis, it is powered by a Ford or Mercury engine. It will be produced at the rate of 40 a month, sell for around \$3,400.





#### ▲ Earthbound 'Flying Saucer'

The latest Italian car design by Alfa Romeo, the "Disco Volante" (Flying Saucer), is looked over by model Dee Pilkington. It has a 200-hp., four-cylinder engine with double overhead camshafts.



#### ◀ Once Over Lightly

Midget racing car (64) flips on turn at California's track but Rudy Tarditi (still in car) was able to walk away from the crash. Tarditi, who sustained only bruises, remained in the flipped-over racer.

#### ▼ Sweet Speedstress

Shapely Joan Bauer was named Queen of the Hot Rods and reigned over the National Hot Rod and Sports car Show at famed Palisades Park in New Jersey.

#### ▼ New Gimmick in Parking

A midget railroad crossing barrier and a modified parking meter combine to make the latest in parking lot operation. When dime is inserted the barrier rises. Dr. Richard Straith is the inventor.



# Inspector Sherlock Jones

in

## The GREAT

# BRAKE



*Left.* Sherlock inspected 800 cars, found 137 which need relining. Check for exposed rivets, grease leaks and (on rear) axle end play. *Lower left.* Slide the rubber boot off the cylinder. If wet, the cylinder is leaking fluid and should be replaced. *Below.* Check the emergency brake cable for freeness in the





Motor Age's profit sleuth sets his sights for safety in May, Safety Check Month, by tracking down faulty braking systems, which are a mechanical Public Enemy Number One on our roads

# E MYSTERY

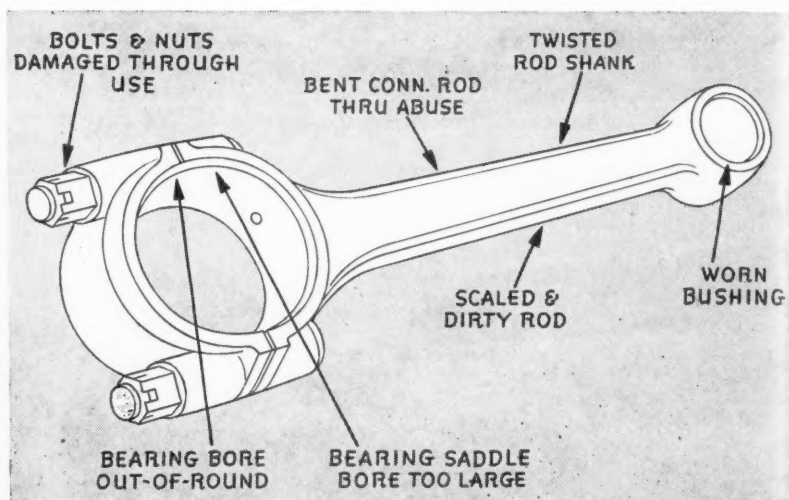
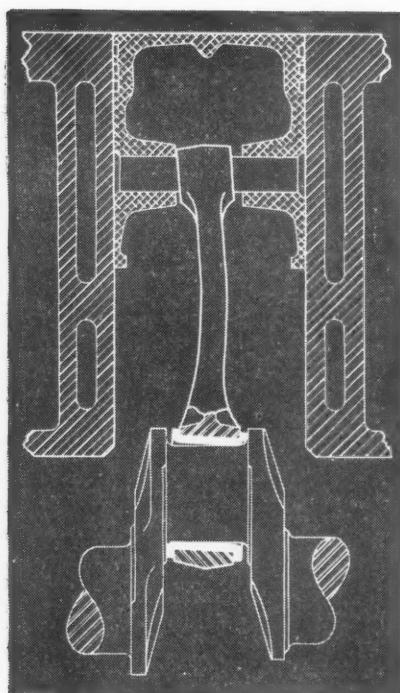
housing. *Below.* There's no doubt about the guilty parts in this case. Note that the brake drum is scored and split. Linings are worn to the rivets. *Below right.* Solitary confinement for these hydraulic system parts. If they had not been apprehended in time, another life might have been lost.

**I**N his constant search for unsafe cars and hidden service profits, Inspector Sherlock Jones frequently comes up against the No. 1 convict in the line-up of mechanical failures—defective brake systems. The Inspector is aware of the record of brake trouble in highway fatalities (No. 1 contender in the 1952 list of mechanical failures causing fatal highway accidents), and explains that less than a dozen clues will lead a mechanic to any defective brake systems. In examining brake linings himself, Inspector Jones came up with some interesting figures on reline jobs. He found that out of 800 cars inspected, 137 or 17.1 per cent needed new linings.

On most American built cars, the brake system is so designed that the front brakes do more braking than the rear. To provide greater braking power at the front wheels, larger diameter wheel cylinders are used. When a car is being slowed down by the brakes, a transfer of weight takes place from the rear to the front end of the car. The quicker the stop—the greater the transfer of weight to the front, which tends to keep the front wheels turning. Consequently, more braking power is needed at the front wheels and the front brake lining is inclined to wear out faster than on the rear wheels. When inspecting the lining, the rear drums should be removed along with the front, since many car owners have

(Continued on page 112)





Above. These are the things to watch for when examining a connecting rod during an engine overhaul.

Left. Exaggerated sketch of a bent connecting rod, which causes misalignment between the crankshaft throw and piston.

# Don't Spare the Rods or You'll S

**An authority tells why and how rods should be checked on engine overhaul**

by **Walter Thill**

Chief Engineer, Federal-Mogul Corp.

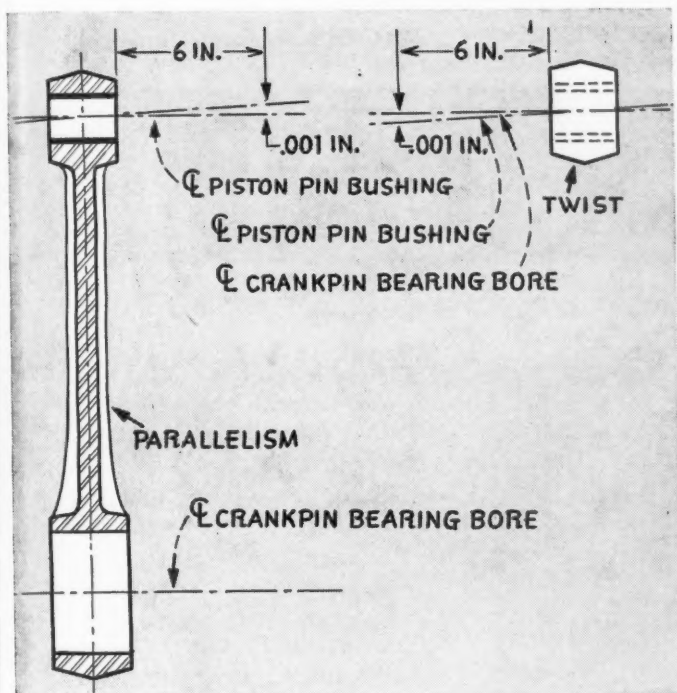
**T**oo many engines are reconditioned today without giving the connecting rods a thorough inspection before putting in new insert bearings. Today's high speed, high

compression engines operating under heavy loads and under burdensome traffic conditions will not take this kind of treatment very long.

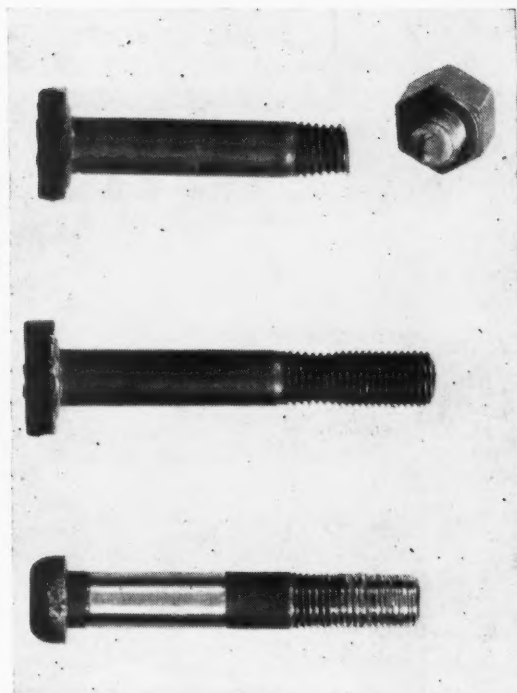
No, every engine you rebuild may not have faulty connecting rods, or main bearing saddles for that matter, but how do you know? The first thing that can happen if you do not check your jobs is to have a rod go out on one of the newly "rebuilt" and have the owner call in for a tow, then it's a matter of tearing the engine down and doing the job over. This makes the oversight costly.

Probably no other sub-assembly in an engine is so unintentionally slighted as the connecting rod; probably because it is of rugged appearance and construction, and there are many of them. Experienced mechanics know that many

*(Continued on page 102)*



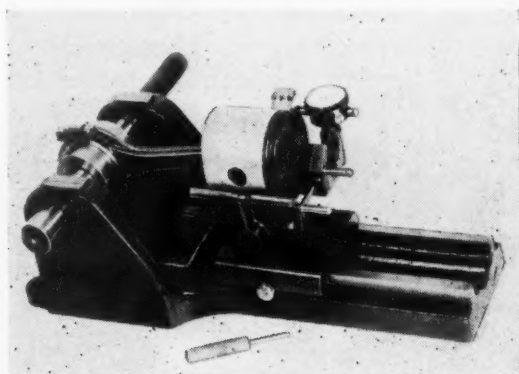
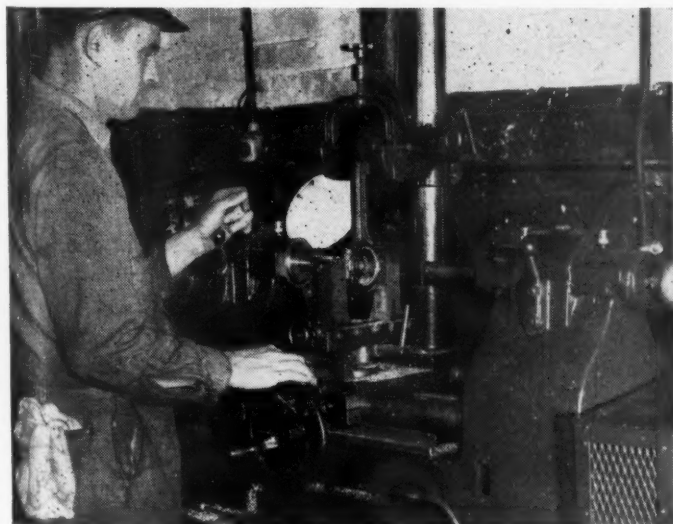
Above. Shown here are the minimum fits and tolerances and points to check on a connecting rod, as recommended by the factory engineering departments.



Above. No longer serviceable, the top bolt was overtightened, the center one is stretched and the lower one stripped.

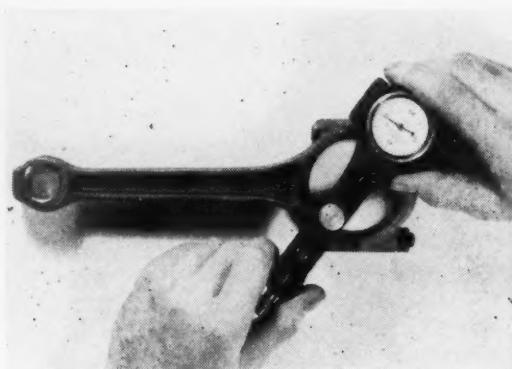
# Spoil the Engine

Below. A connecting rod being machined in a special fixture. The bore, which was out-of-round, will be fitted with an oversize bearing.



Above. A rod aligning fixture in use. Note the dial gage in position for checking alignment.

Below. A dial gage being used to check a connecting rod for out-of-roundness.





# OUR AUTO SHOW

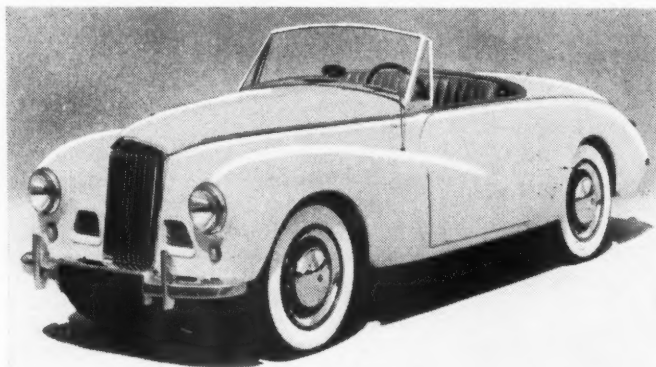


Herb Shriner, sponsor of the IMSS, stands beside the sleek, fiberglass-bodied Mota.

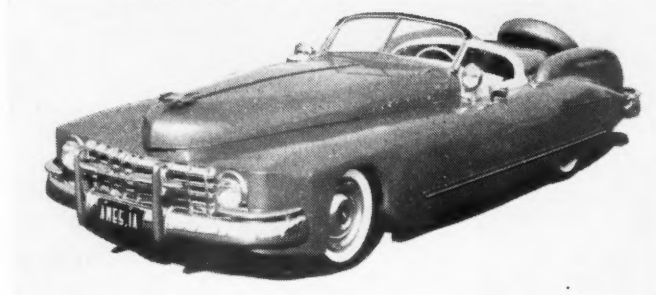
**T**HE automotive world and the general public focused their attention on New York last month with the showing of Electric Auto Lite Company's "Easter Parade of Stars" Automobile Show and the Herb Shriner sponsored International Motor Sports Show.

The "Easter Parade of Stars" Show, featuring some forty new cars, culminated in a series of "salutes" to American auto car manufacturers by the Auto Lite Company at the Waldorf-Astoria.

*(Continued on page 74)*



Rootes Motors displayed the new Sunbeam-Alpine sports roadster. This two-seater, with 80 hp engine, is designed as a high-speed long distance touring car.



This car captured 3rd place honors in custom car competition. Owned by Lloyd Templeton, of Ames, Iowa, it's a '48 Merc chassis and power plant with body parts from a variety of cars

# NOTEBOOK

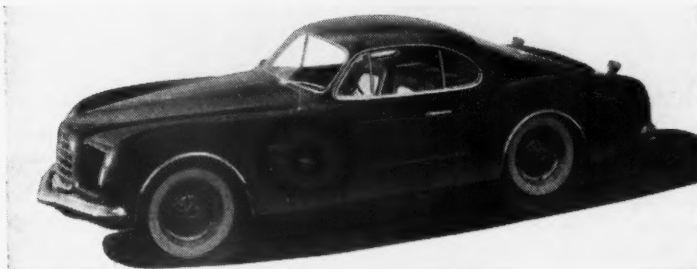
*Two recent New York shows gave the public a look at the latest in car styling and engineering.*

*By Frank A. Bozek, Asst. Editor*

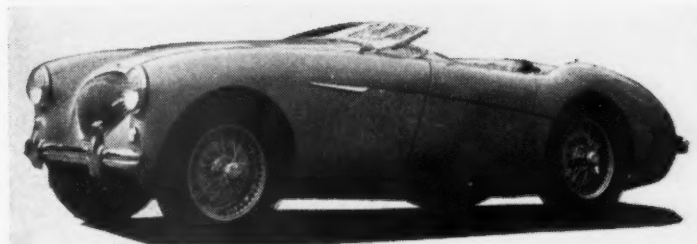


Auto Lite's "Pylon of Power" depicts engineering methods.

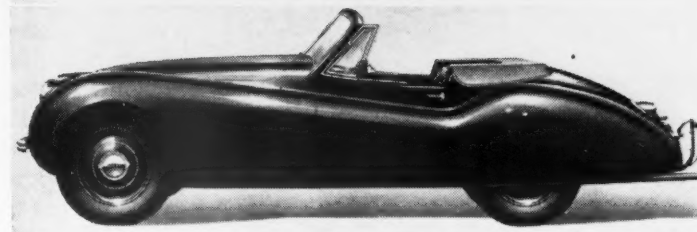
A new experimental design model, called the D'Elegance, was displayed by Chrysler at the "Easter Parade of Stars". Has a 115 in. New Yorker frame and a Fire Power V-8 engine.



This racy Austin-Healey is the newest member of the Austin line. Has a 90 hp engine with a top speed of 110 mph. This car features overdrive.



The public had a first glimpse of the Jaguar XK-120 convertible at the show in New York. Roll-up and vent windows are new features.





Pop O'Neill

# Pop Stops an Oil

**Pop knew he'd have to stop this '46**

**Packard from smoking or face Marthy**

**Peters, who wielded a mean umbrella**

**O**LD Jeff Peters had gone and done it. He had finally bought a new car. Oh, it wasn't exactly a new car, this '46 Packard, but it was new to him, as what kind of a car wouldn't have been?

"There was nothing really wrong with the Erskine," he was telling Pop out front, "but Marthy decided that we ought to be driving something with a little more class. First time in her life, Pop, that my wife's high falutin' ideas ever got the better of her good judgment."

"Well, well, well." Pop was scratching his left cheek like he does when he is wishing he could think of something correct-like to say. "Looks like quite a buy you got there, Jeff. Yep, quite a buy. How does she run?" Pop was actually so surprised to see Jeff Peters in anything but his 1929 Erskine that he didn't know what to say. A Packard just didn't go with Old Jeff—and visa versa.

"Like a young heifer, Pop. She takes those hills in nothing flat. Never have to shift gears at all. Why, she's better'n a Erskine any day. You know Marthy's a pretty good judge of cars at that."

"Marthy's a pretty good judge of men too," Pop quipped.

Jeff ignored the wise crack. Only a crooked half smile showed that he had heard. "But I want you to look over this Packard. Don't think she needs anything. The salesman said the en-

gine had been completely reconditioned. Well—new rings anyway. But give her a good tuning up. I can't be driving a potential road failure these days."

"Sure thing, Jeff! Start'er up and we'll have a look." Pop was biting the end of his cigar and scowling at the engine hood wondering what he would find under there. "But from the looks of that smoking exhaust, I'm afraid you're going to need more than a tune up, Jeff."

Jeff had turned to leave, but he stopped suddenly. "Oh, yes, I meant to tell you. Seems like I'm using a whale of a lot of oil these days. Smokes pretty bad too. Wonder if you'd take the smoking out of her, Pop. Probably needs some of that what-you-call-it clean up oil."

Mr. Peters was studying the back of Pop's head as he leaned into the engine compartment listening to the engine. Something in the arch of Pop's neck told him a story he had long feared. "Think it's better'n the Erskine, Pop?"

"Mmmm, uses oil does it? How much oil do you burn?" Pop queried.

"Well it's not bad. Not bad at all. About—never over a quart to every fifty miles." Jeff's tone at this point did not match his bluff. "Might be leaking out the differential," he said hopefully.

"And you say Windish told you this car had new rings?"

"That's what he said. I took it back the other day, and he said the rings hadn't sat yet. Maybe



# Pumper

he said seated. But anyway I wish they'd get settled pretty soon and quit smoking so much on me."

Pop shook a tossed head. "I'll call you after we make a thorough check. We don't want to blaspheme your Packard without proof positive."

Jeff nodded and stole one more glance at the Packard, eyeing the machine reproachfully as if it were scheming to make a fool of him. "Goodness me," he groaned. "I'm beginning to wonder if its better'n a Erskine after all."

As soon as Jeff had gone Pop told Larry to drive the Packard in. Blue smoke poured out the rear like a run-away diesel as he shunted her through the doorway. "Can't tune an engine in this condition," Larry complained, climbing out and raising the hood. "I'll bet this car hasn't seen the inside of a garage since it left the factory."

Pop adjusted the trouble light. "No, I wouldn't say that. There's been some work done on this wagon and recently. New gasket. Clean head. Even new spark plugs."

"It must be a leak," suggested Tommy, who had come up for the pow-wow. Tommy always wanted to be in on the diagnosis. He called it chewing the fat, but he knew that there was logic in Pop's diagnosis even though he did not understand each step sometimes. "See, there's not a sign of blow-by. It's got to be an external leak," and Tommy disappeared under the Packard like a scared mole.

*(Continued on page 90)*



"Mr. O'Neill," Marthy Peters exclaimed, "don't you dare run up any more bills on me!"

# IDEAS THAT PAID OFF

The right promotion can play an important part in changing your business venture from a run-of-the-mill affair to a veritable goldmine of success

## Used House For Trade

Who'd trade a car for a house? This question attracted a great deal of attention and brought many prospects to the Norman Motor Co. (Ford) in Collegeville, Md.

It all came about when the Norman Motor Co. wanted to clear away an old home that was located on a lot across the street from its main location. As this lot is to be used as a used car site, removal of the old house became a necessity.

"Just as a gimmick, we decided to advertise the exchange of the home for a clean, used 1949 car," says Bernard A. Sugrue, firm president, "because we had a demand on cars of this year from used car

prospects. The house however had to be removed by the customer."

A large sign was placed onto the side of the house advertising its trade in exchange for a 1949 automobile. For further information, interested prospects had only to go into the agency across the street.

"We have had dozens of people come into our agency and ask to see the house across the street," says Sugrue, "and they are always shown through it. And even though we have had the sign on this property for several months, we haven't as yet had any takers because of the moving factor of the property. We do feel, however, that one of these days, our offer will be accepted."

In the meantime, of the dozens of trade prospects that have come here, many sales have been made to them. And it all came through this promotional idea.

## "Buy 'Em by the Pound"

It seems that some car buyers—at least used car buyers—don't mind buying automobiles by the pound!

Officials of the Petty Motor Company in Salt Lake City, Utah, recently experimented with selling automobiles by the pound and they report "better than average results." In a special classified section advertisement, the Petty Mo-

*(Continued on page 136)*



## BUY 'EM BY THE POUND

Nice Juicy Values—Not a Dog in the Lot

'40 HUDSON 4 dr. sedan.....	3c per lb.
'40 PLYMOUTH 2dr. sedan.....	7c per lb.
'40 CHEVROLET cl coupe.....	10c per lb.
'40 MERCURY club coupe.....	14c per lb.
'42 CHEVROLET 4 dr sedan.....	16c per lb.
'42 CHRYSLER New Yorker 4 d.....	18c per lb.
'46 CHEVROLET Styline 2 door.....	25c per lb.
'47 CHEVROLET Fltmastr 4 d.....	28c per lb.
'48 PLYMOUTH sp del 4 d.....	33c per lb.
'49 FORD deluxe 6 2 door.....	38c per lb.
'50 FORD deluxe 6 2 door.....	48c per lb.

(Prices Figured on Factory Shipping Weight)

PETTY MOTOR

## Likes Pop O'Neill

Editor, MOTOR AGE:

I want to say that I really enjoy the Pop O'Neill stories as they are so true to the run-of-the-shop work.

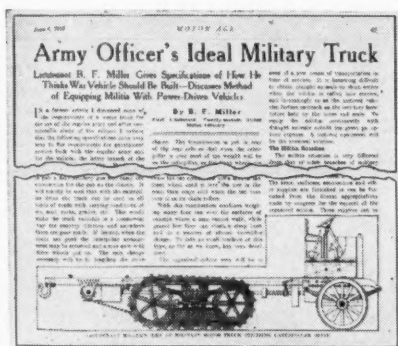
Your article on the switch to 12-volt systems was very good, but somewhat late. I predicted three years ago that our car manufacturers would adopt it for two reasons, better battery service and better ignition.

There is a man in town who still drives one of the last 12-volt Dodges. He told me that the battery has been rebuilt three times in the life of the car. *R. Vernon Fuller, Foreign and Domestic Auto Repairs, Daytona Beach, Fla.*

## Half-Tracks in 1912

Editor, MOTOR AGE:

I always thought that the Half-track was not a very old idea. Look at page 45, in the June 6, 1912, issue of MOTOR AGE. A lieutenant B. F. Miller had the idea then.



I also noticed that the rate was \$3 per year in 1912. Who said prices went up? *Bill Smiley, Mount Vernon Automotive, Mount Vernon, Wash.*

## Car Thieves Beware

Editor, MOTOR AGE:

I am writing concerning the trouble we car owners have with thieves. A car can't be parked safely, for thieves force entry by breaking a window and start the car by using a jump wire in the ignition switch.

After thieves failed to start my car, I installed an alarm, using the horn, the hand brake handle, the

courtesy lights in the doors and two switches under the hood. If someone tries to break into my car again, the horn will blow. If they touch the doors, release the hand brake, or open the hood the horn will start blowing. *Ray Bruguera, Ray Auto Repair Shop, Brooklyn, N. Y.*

Auto car thefts continue to be one of the major criminal problems in the U. S. According to J. Edgar Hoover, director of the FBI, an estimated 215,310 auto thefts were committed last year as compared to 196,960 in 1951. These figures indicate a 9.3 per cent increase over 1951.—Ed.

## Wanted: Contest Ideas

Editor, MOTOR AGE:

I am in need of help! I am in need of contest suggestions that can be used in an auto agency for promoting more business; one that the employees can earn a percentage of, or win prizes.

The contest should run for at least one month, but not more than three months. If you do not have such plans I would appreciate it very much if you could give me any leads on where I can get the desired information. *William M. Staaban, Sachs and Sons Mercury, Downey, Calif.*

Motor Age has printed several ideas but we would like to have additional suggestions concerning contests from our readers.—Ed.

## SeBe Writes a Letter

Editor, MOTOR AGE:

Bought my first MOTOR AGE in the middle '20's; never before have I rote you about anything. But you

# Letters TO THE EDITORS



ask a question on the frunt cover of your April issue, What is the matter with this picture? I would say everything, nothing right. Who ever seen a Shinglen Hatchet with a Ball Head? Who ever seen an open end wrench like this one? Who could use such a gage? Who ever had a Wood Bit with a round Shank, a Monkey wrench with the slide turned rong way, Hedge shears with a wrench Heck hole in blade? Nobody ever had all these gadgets on a lug wrench. The man is sure excited. He has on Slim's cover alls and forgot to roll them up. Left his tie on the out side where he could use it for a wipe rag. His shoes is running shoes; he will probably need them in the near future. Paint gun turned over; no cap on thinner can; lited torch in his hand, and fire a few inches from the explosive; has his book of directions up side down and in his other hand has open bucket



of Gasoline with drip in bottom of bucket. Good shape he is in. Next, claw hammer turned rong way; Pliers together rong; Nut buster with crooked shank; battery tester with top torn off, won't suck never. Never heard of a C clamp with a gage on it nor a bit that had cutters both right and left; hand drill handle on the rong side of wheel; (Continued on page 154)

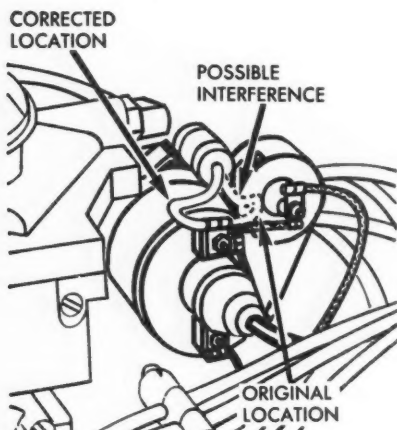


# Service Suggestions

From the Factories

## Rerouting Necessary For Cadillac Condenser Lead

On early 1953 Cadillac cars, engine numbers 00001 through 01700, there is a possibility that the positive lead from the radio suppression condenser on the coil may become pinched between the coil resistor and the ignition coil body. In the event that this should happen, the primary side of the coil could develop a short circuit to ground. To avoid this possibility, the condenser lead wire on Cadillac cars built after engine number 01700 had been re-located, as shown, by reversing its connector at the coil primary terminal. Ser-



vicemen are urged to make this same correction on all 1953 Cadillac cars built previous to engine number 01701.

## Tighten Plymouth Door Hinge Screws to 18-20 ft. Pounds

When aligning the doors on Plymouth cars, it is important to be sure that the hinge screws are tightened securely to prevent door sag. To do this, use a Phillips head tool with a torque wrench.

Tighten the hinge screws to a torque of a 18-20 ft. lbs. This

amount of torque cannot be obtained with an ordinary Phillips head screwdriver. A torque wrench must be used to get enough leverage to be sure the screws are tight. If a hinge screw is damaged, it should be replaced with an oval head Phillips screw with an attached washer.

## Use Only One Head Gasket On Pontiac Engine

It has been found that two cylinder-head gaskets are being installed. This practice is not acceptable and should be discontinued. The additional gasket surface and thickness that requires sealing when two head gaskets are used, greatly increases the danger of coolant and compression leaks. Loss of coolant may result in overheating or hydrostatic crack in the piston. Compression leaks will cause poor engine performance.

## Plymouth Rear Engine Bolt Located in Floor Pan

The access holes for the right rear engine mounting bolt and the overdrive governor are located in the floor pan of P-24 models. A screwdriver may be used to remove the snap-in type engine mounting bolt cover.

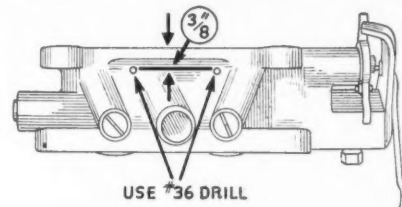
To reach the overdrive governor access hole, move the front seat as far to the rear as possible.

Fold forward the right portion of the floor mat, and remove the three screws which secure the access hole cover in place.

## Carburetor Modification on Studebaker V-8 Engine

The drilling of the vent holes in the Stromberg 6-111B type carburetor, for easier starting when the engine is hot, has been performed on Studebaker Commanders V-8 engines with satisfactory results.

Because of the success of this service modification, the venting has been adopted in production of late 1952 Commander models effective with Engine No. V-201506.



It is possible that owners of Commanders with the Stromberg 6-107A type carburetor may experience a hot starting problem similar to that found in the 6-111B carburetors (before modification). Although the 6-107A carburetor is externally vented, starting a hot engine with this type carburetor can be improved by drilling the two holes into the barrel only.

(Continued on page 160)



# New PRODUCTS SHOW WINDOW

FOR FURTHER INFORMATION USE POSTCARD FACING NEXT PAGE

## 258. Plug Tester

**AC Spark Plug Division:** A new type spark plug indicator with a deep well spark view chamber that enables the mechanic as well as the car owner to see how plugs are firing is now available. The



indicator shows relative operating efficiency of old plugs compared with new ones, and acts as a positive check for replacing plugs. It can be used in conjunction with the dealer's present spark plug cleaner.

## 259. Grease Dispenser

**K-P Mfg. Company:** A new dispenser designed to fill all types of grease guns, known as the GFD-400 is said to handle any grease gun equipped with a filler plug, or one that requires removal of the gun head for filling. The dual dispenser fills either through a filler valve fitting in the head of the gun, or through a filler plug on the side of the dispenser. The

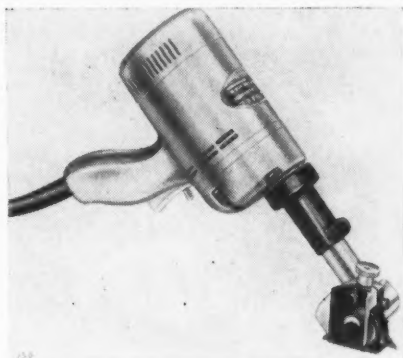
dispenser fits all wall pails and can be used with any standard grease gun.

## 260. Battery Charger

**Berg-Gibson Mfg. Co.:** A new model battery charger, tester, and desulphator is announced by the manufacturer for charging both six and twelve volt batteries. The unit is designed to operate on 115 volts and can be carried in one hand. Output is 80 amp. on 6 volts and 70 amp. on 12 volts. Discharge and test, one hour timer and automatic low finish rate, plus a "tuck-a-way" cord and cables are all features of this new unit.

## 261. Power Saw

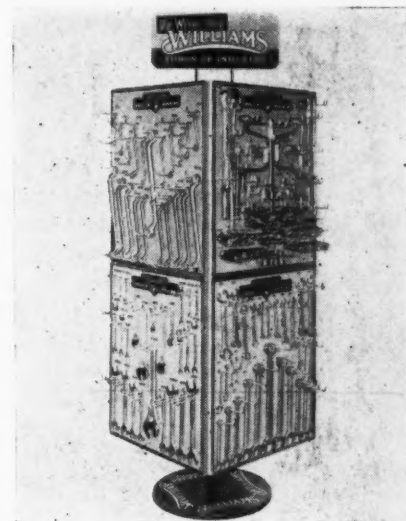
**The Kett Tool Company:** The Kett universal power saw converts a power drill for use in cutting metal, plastic, and other materials. It is said to leave an accurate knurled finished edge and cuts



straight or contour shapes evenly. It will cut plastic and other metals up to 1/4 inch thick, aluminum up to 3/16 inch thick and, on intermittent cuts, mild steel up to 12 gage.

## 262. Tool Display

**J. H. Williams & Company:** Only four square feet of floor space is required for the Williams revolving pedestal display. Available in four sizes to hold 3, 4, 6,



and 8 Williams display panels, the flexible design of these pedestal merchandisers enables the user to custom-make panel arrangements. Pedestals have ball bearing action and include a colorful top sign.

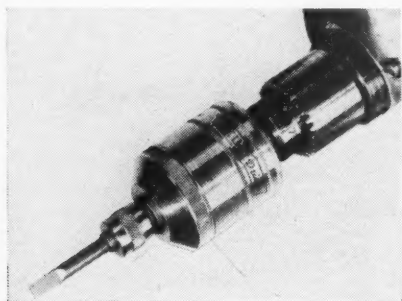
## 263. Bumper Hitch

**The Fulton Company:** An attachment for utility and boat trailers features secure attachment and ease for dealer handling. One model is said to fit most cars. Known as the Fulton No. 29 Frame-Bumper Hitch, it attaches to the rear cross-member of the car frame and to the rear bumper. Heavy steel frame support reinforces the rear frame member so that no frame drilling is required.

## New Products . . . . . Continued from Page 51

### 264. Drill Attachments

**Drilo Corporation:** The new Dril-O-Driver converts electric drills into power screwdrivers. Fifty-four 1/4-inch drive standard tool accessories, which can be used with these electric drills and



Dril-O-Driver combination, are on the market, the manufacturer states. The cone drive construction permits the operator to control the force and speed of the device from 0 to full speed of the electric drill.

### 265. Sales Program

**John Wood Company, Bennett Pump Division:** A new book, presenting a complete merchandising program built around "Balanced Inflation" features Eco Tireflators. The program is designed to promote customer loyalty and greater T.B.A. sales through premium air service and sound merchandising, using professionally prepared promotional aids. The catalog also shows the company's complete line of automatic tire inflating mechanisms as well as air and water reels.

### 266. Business Machine

**Remington-Rand Co:** The Remington-Rand bookkeeping machine, said to be suitable for car dealers, is designed for mechanizing customer accounts receivable. The machine will produce departmental income expense analysis, departmental gross profits analysis, trial balance paged analysis, financial statements, and payrolls. The machine is designed for small or large business. It is said to be a complete bookkeeping machine in the low price field which produces multiple records with mechanical

proof for every entry, instantly computed account balances, and automatically accumulated accounting control figures. All computations are made step by step within the registers.

### 267. Sales Aid

**Barrett Equipment Company:** The Brake Service Profit Index is a device with which a shop can determine gross income to be derived from brake service performed at the rate of 1 to 20 jobs per week over a period of one year. By turning the upper disc of the pocket size wheel, the gross profit is shown in the lower window. Income figures are based on current flat rate schedules using Barrett equipment.

### 268. Gasket Assortment

**Kem Mfg. Co.:** An assortment of 250 fuel pump gaskets including all necessary mounting, cork bowl, and cover gaskets, required by servicing fuel and vacuum pumps as well as fuel filters, is now available from this firm. The 21 different styles are separated by compartments in a handy metal cabinet.

### 269. Angle Grinder

**Ingersoll-Rand Company:** A new air powered, direct drive angle grinder eliminates the need of gears at any time. It runs at 90 pounds per sq. inch air pressure at 6000 rpm. Two types of dead handles are available for this grinder. One is straight and the other is 30 degrees off straight. These handles may be attached to either side of the grinder and the angled handle may be attached to any one of four positions. A built-in lubricator is said to provide ample lubrication for long life.

### 270. Multi-Duty Pliers

**H. R. Basford Company:** The Gripso multi-duty leverage pliers feature parallel jaw action and employ three piece construction to achieve 10 to 1 multiplied gripping power. Four position slip-

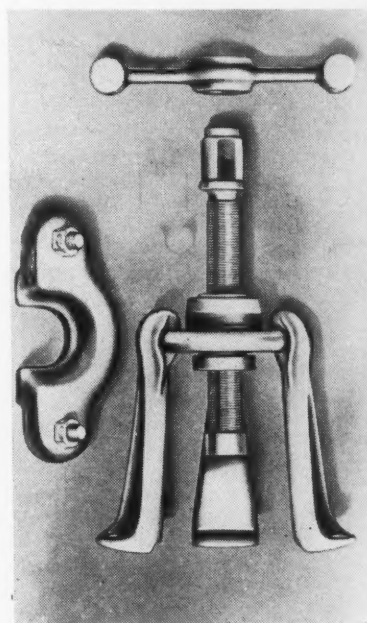
joint action permits jaws to open parallel for solid grip on nuts, bolts, and so forth without chewing off corners. Compound leverage provides sufficient gripping power for use as pipe wrench on 1/2 inch or 3/4 inch pipe.

### 271. Spray Gun Cleaner

**Jaguar Tool Company:** A device which cleans paint guns and mixing cans through jet action has been made available by this company. Known as the Jaguar "Jet," it is said to clean guns and cups by forcing the jets of thinner up into the parts. It can also be used for cleaning mixing cans. It uses the same thinner over and over again for cleaning, and is suitable for use with the non-immersable heating cups which are used in the hot spray painting. The machine is in a metal case measuring 9 x 9 inches x 14 inches and weighs 10 pounds.

### 272. Wheel Pullers

**Bonney Forge & Tool Works:** The universal wheel puller and adaptor, covering approximately 98 per cent of all cars requiring a puller, has been added to its line by Bonney Forge & Tool Works.



The puller has adjustable legs which can be adapted to any hub, regardless of the number of studs, providing the bolt circle is no greater than 7 1/2 inches. When used with the adaptor, it will service Fords and Mercurys, 1936-48.



en  
ts,  
w-  
er-  
ng  
on

ce  
ix-  
as  
m-  
,"  
ps  
up  
ed  
es  
er  
ole  
le  
in  
a-  
r-  
nd

s:  
nd  
ly  
ng  
ne  
ts.

gs  
b,  
is,  
no  
en  
r-  
8.

ne  
th  
m  
he  
Vi  
co  
se  
an  
be  
W  
ba  
we  
ke  
do  
D

o  
w  
to  
u  
r  
d  
a  
n  
y  
d

Y  
o  
J  
t  
t  
I  
s  
n  
f

273. Body Sealer

Vibradamp Corporation: Four new products have been added to the Vibradamp "400" line of automotive sealers, deadeners, and adhesives. The new products are: Vibradamp Body Sealer—a heavy compound sealing welded body seams, under moldings and other areas which are not required to be finished painted; Vibradamp Weatherstrip Cement—a rubber base adhesive for fastening weatherstrip materials and gaskets to cowl, hoods, deck lids and doors, etc.; Vibradamp Body Deadener—a vibration dampener

for use on doors, deck lids, quarter panels and floors; Vibradamp Trim Cement—a non-bleeding, water resistant bond for all types of interior trim repair and installation.

274. Brake Rivets

Barsam Company: A new method of relining brakes makes use of an expanding type rivet. This company, which distributes this new type of rivet and kit of three tools to enable the serviceman to reline all rivet type brakes without removing the shoes from the car,

claims that it is possible to do a complete brake relining job in one hour or less with this new method. The tools contained in the kit are, one for removing the old lining, one for setting the new rivet and finally, one for expanding the rivet. There are two types of rivets available, one for Bendix shoes, and one for Lockheed shoes.

275. Bushing Tools

National Machine Works, Inc.: The National Bushing Puller and Driver Kit is designed to make possible the rapid and safe re-

Postcard valid for 90 days only. Information may be obtained subsequently by letter, fully describing the item in question.

More Info

on new products in this issue which are of special interest to you can be obtained by using the free post card at the right. Fill in your name, address and other information and circle the numbers of the new products which interest you. Tear out the card and drop it in the mail.

Here's How

you can pass your thoughts on Motor Age to its editors. Just write down the titles of the features you like best in this issue in the order of your preference. Then, in the next spaces, write in your ideas on making Motor Age more useful to you.

Frank P. Tighe, EDITOR MOTOR AGE  
P. O. Box 76, Village Station, N. Y. 14, N. Y.

5/53

Please send me further information on the New Products, the code numbers of which I have circled below.

- |                            |                               |                         |
|----------------------------|-------------------------------|-------------------------|
| 258. Plug Tester           | 272. Wheel Pullers            | 286. Coil Spring Spacer |
| 259. Grease Dispenser      | 273. Body Sealer              | 287. 40-inch Creeper    |
| 260. Battery Charger       | 274. Brake Rivets             | 288. Foreign Car Manual |
| 261. Power Saw             | 275. Bushing Tools            | 289. Washer Fluid       |
| 262. Tool Display          | 276. Battery Charger          | 290. Premium Item       |
| 263. Bumper Hitch          | 277. Air Muffler              | 291. Tire Gun           |
| 264. Drill Attachments     | 278. Bearing Line             | 292. Impact Wrenches    |
| 265. Merchandising Program | 279. Valve Service Kit        | 293. Electric Hoist     |
| 266. Bookkeeping Machine   | 280. Groove Cleaner           | 294. Mechanic's Covers  |
| 267. Sales Aid             | 281. Convertible Top Material | 295. Automotive Manuals |
| 268. Gasket Assortment     | 282. Brush Compound           | 296. Wheel Lift         |
| 269. Angle Grinder         | 283. Fast Charger             | 297. Tool Catalog       |
| 270. Multi-Duty Pliers     | 284. Valve Manual             | 298. Wall Chart         |
| 271. Spray Gun Cleaner     | 285. All-Purpose Snips        | 299. Piston Ring Set    |

Your Name .....Your Title .....  
Your Company .....  
Jobber ..... Independent.....Dealer .....  
Address ..... (Street & No.) (City) (Zone) (State)

Frank P. Tighe, EDITOR MOTOR AGE  
Chestnut & 56th Sts., Philadelphia 39, Pa.

5/53

We liked the following features in this issue of Motor Age:

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

Here's how Motor Age can be more helpful to us:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Your Name .....Your Title .....  
Your Company .....  
Jobber ..... Independent.....Dealer .....  
Address ..... (Street & No.) (City) (Zone) (State)



removal of the original factory bushing and installation of the National drive shaft bushing and seal assembly. After the drive-shaft dis-assembly is completed, 5 to 10 minutes work will remove the bushing when using this puller. The firm states that the average time in doing this job without the tool, runs from one to four hours. It is made for use on most Chevrolet cars and most Chevrolet GMC pickup trucks.

#### **276. Battery Charger**

**Fox Products Co.:** A new line of battery chargers for 6 and 12 volt batteries consists of five models including a multi-purpose power-charger—a 20 amp. unit for boost and slow charging; a portable power charger for both fast and slow charging and booster charging; the Lo-Boy Deluxe for both fast and slow charging with a built-in cell comparator tester. This comes with rubber tired

wheels; the Hi-Boy Deluxe, a fast and slow charger with built-in comparator tester in a large streamlined cabinet with rubber wheels; Tungar slow charger, an overnight series chargers for groups of batteries.

#### **277. Air Muffler**

**Allied Witan Company:** A new air exhaust muffler designer to check noise and vapor mists of car lifts and other air operated equipment where air must be exhausted, is now on the market. The muffler silences exhaust air noises by dissipating the exhaust energy. Exhaust air entering the muffler is trapped by the inlet chamber creating an air cushion to absorb initial exhaust impact. The flow is broken into a series of streams which strike the disseminator in a criss-cross pattern. The exhaust air flows into the atmosphere in a smooth, noise and vapor free condition.

#### **278. Bearing Line**

**Clevite Service, Inc.:** An extensive line of replacement engine bearings for popular English cars is available in this country. Distributed under the name "Mormouth" through the NAPA, the new line of main and rod bearings is manufactured in England.

#### **279. Valve Service Kit**

**Houser Engineering & Mfg. Company, Inc.:** A hydraulic valve lifter service kit for auto repair shop use on Buicks and Chevrolets is now available. It includes two tools, one for removing hydraulic valve lifters from the block and the other for removing inner sleeves. The tools are precision made for ease of operation, and all parts are cadmium plated and wear hardened. They are packaged in a wooden case.

(Continued on page 117)

FIRST CLASS  
PERMIT No. 18  
Sec. 34.9, P. L. & R.  
Philadelphia 39, Pa.

#### **BUSINESS REPLY CARD**

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

**Chilton's MOTOR AGE**

P. O. Box 76,

Village Station,

Readers Service Dept.

New York 14, N. Y.

FIRST CLASS  
PERMIT No. 18  
Sec. 34.9, P. L. & R.  
Philadelphia 39, Pa.

#### **BUSINESS REPLY CARD**

NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY

**Chilton's MOTOR AGE**

Chestnut and 56th Sts.

Philadelphia 39, Pa.

Attention: Frank P. Tighe, Editor

fast  
lt-in  
arge  
bber  
, an  
for

new  
r to  
s of  
ated  
ex-  
rket.  
air  
aust  
the  
inlet  
hion  
pact.  
es of  
emi-  
The  
mos-  
apor

ten-  
gin  
ear  
Di  
Mor  
t  
ing

Com-  
fter  
shop  
s is  
two  
ulic  
and  
nner  
sion  
and  
and  
ged

(17)



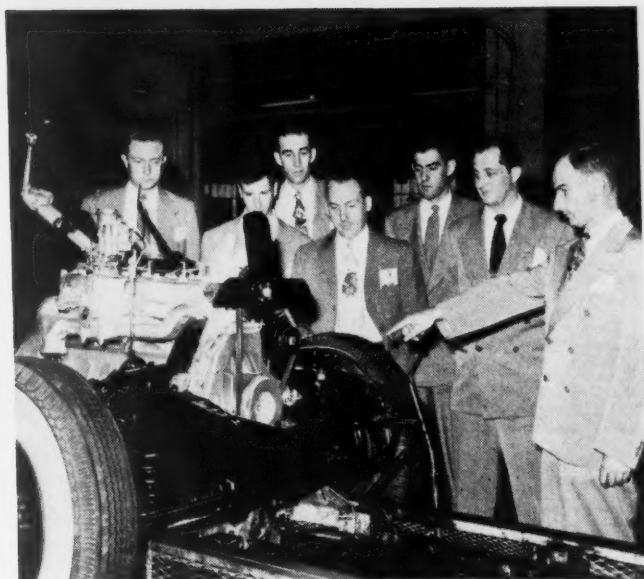




Typical scene from Chrysler Corporation's Dealers' Sons Conference shows a discussion session during one of the recent 6-weeks programs held yearly in Detroit.

Conference members visiting the DeSoto plant (below) are shown some of the finer points of car assembly. Personal study is an important phase of the program.

# Chrysler Dealers' Sons Management Conference



**Dealers' sons get a chance to discuss problems  
concerned with all aspects of dealer-operation**

**F**OR nine months each year, in a series of six-week conferences, an unusual "teaching" program goes on in Detroit. Young men from all over the world meet to dig into the practical study of how to manage an automobile dealership.

The Dealers' Sons Conference of Chrysler Corporation grew from a desire on the part of dealers for a training center where their sons could work through the fundamentals of retail auto dealership operation.

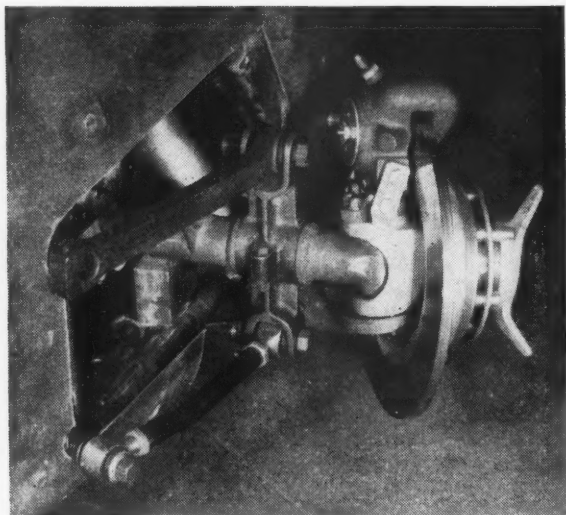
Course material comes from case-studies of going concerns. Theories have to work out successfully in many dealerships before they can break into the course of study. And membership of each group averages about 20 persons.

From September until July, classes move into Detroit every six weeks, the duration of each conference. With time out for holidays, six classes a year are trained.

Since the Dealers' Sons Conferences began  
(Continued on page 110)

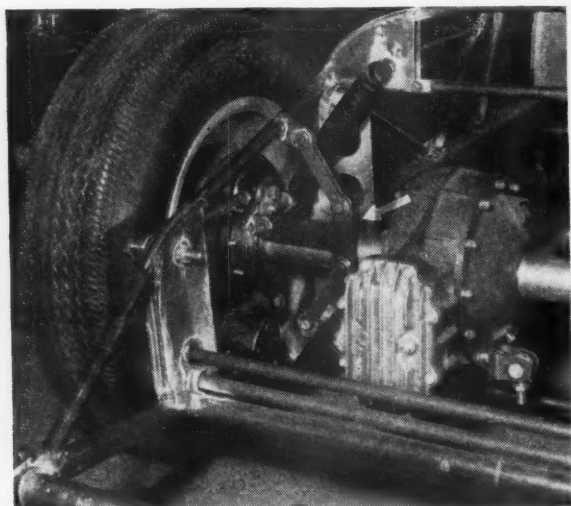
# Rarin' to Go 195 mph at I

by R. Raymond Kay, Pacific Coast Editor



Left front wheel mounting on the 500-B Kurtis Kraft. Note the torsion arm (upper), radius rod (lower) and disk brake.

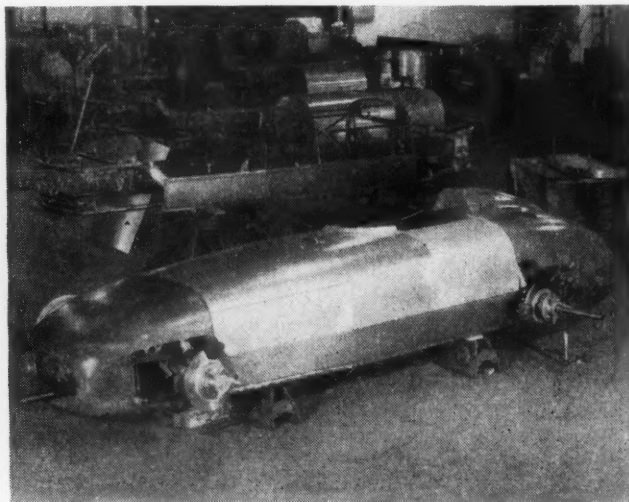
Rear end of the Kurtis Kraft. Note the gear housing on the left side and Panhard truss assembly attached to the upper and lower tubular frame members.



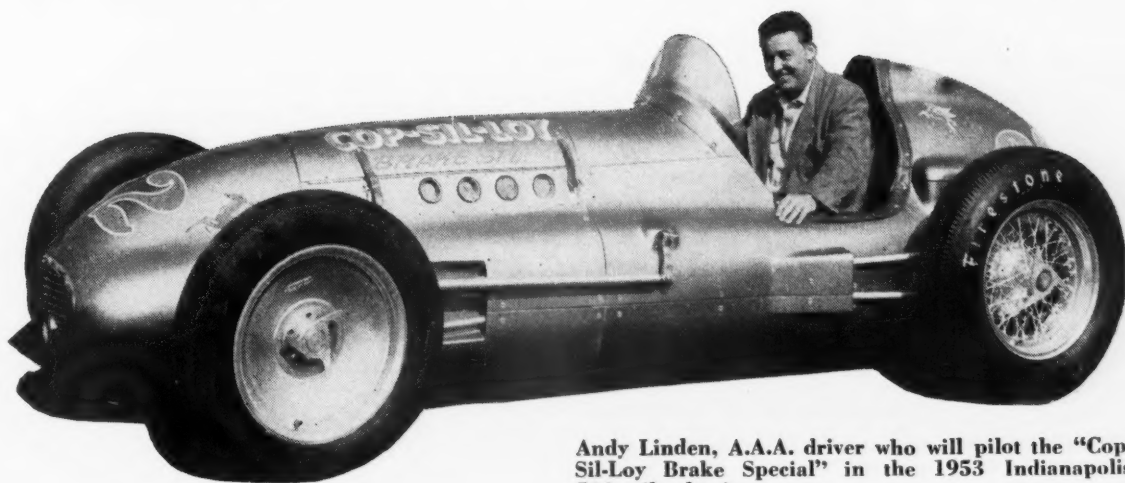
New suspensions, improved tires and offset engine and driveline will, in part, be responsible for the increased straightaway speeds and new records

**M**ORE power, more speed and more cars still running at the finish! That's how it looks to the racing fraternity for the 37th Annual Indianapolis Memorial Day 500-mile speed classic. Over 150,000 spectators will see 33 of the finest racing cars. Experts predict that more cars than last year will be fighting right up to the finish for the coveted winner's

Four of the new Kurtis Kraft 500-B series cars in the various stages of construction. Notice that the nose and tail sections are made of Fibreglas.



# Indianapolis



Andy Linden, A.A.A. driver who will pilot the "Cop-Sil-Loy Brake Special" in the 1953 Indianapolis 500 mile classic.

flag, thanks to new engineering developments.

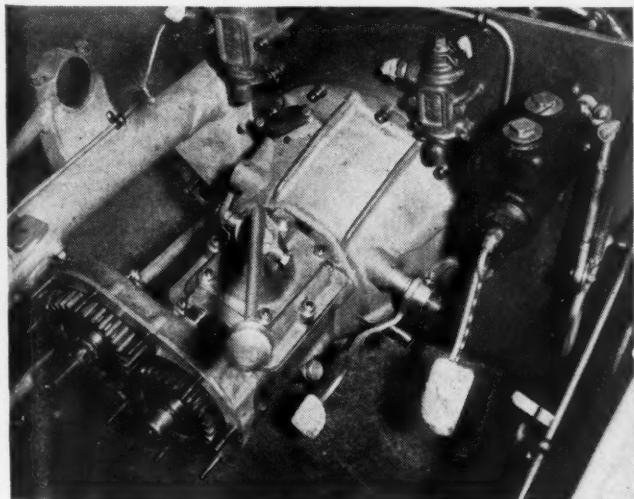
And the pace will be fast! Average speed for the race should go up  $1\frac{1}{2}$  to 2 mph. Weather and track conditions permitting, the winning car could hit an average of 130 mph. The one lap record could go to 142 or 143 mph. And it looks as though Chet Miller's 139.034 mph four-lap record set last year in a Novi will be sur-

passed. Straightaway speeds may reach 195 mph.

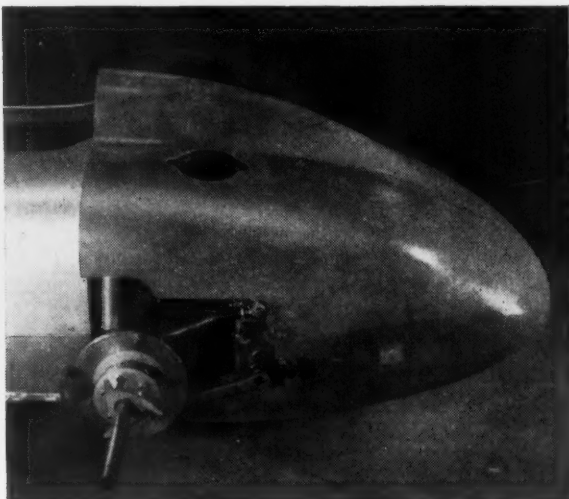
Racing fans should watch the seven new Kurtis-built cars with offset engines. They could be tough competitors, based on Billy Vukovich's 191 pace setting laps last year in a similar car. Top notch drivers say that cars with offset engines provide better handling

*(Continued on page 110)*

The transfer gear placed at the rear of the "Cop-Sil-Loy Brake Special" transmission. This arrangement reduces rear unsprung weight by 35 pounds.



The Fibreglas tail contrasts sharply with the aluminum cockpit body panel on the Kurtis 500-B. The larger fuel filler hole is now on the left side.







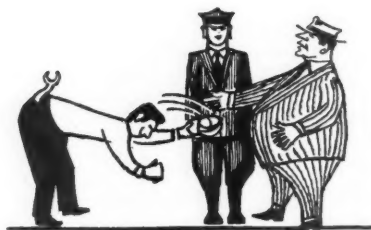
# Know-How

**Charley's shop was typically South Pacific, but his business ideas were as modern as tomorrow**

by K. S. Vandergrift

**I**N a small filling station and auto repair shop just over the Pali from Honolulu, ex-Staff Sergeant Charley Tamashiro was engaged in the trade he had learned while serving with the famed 100th Infantry Battalion. Charley had been one of the first American-Japanese boys to volunteer in Honolulu and had served with the Varsity Victory Volunteers while awaiting the formal approval of the War Department on accepting the A-J's.

Charley had taken to auto mechanics like a Hawaiian takes to water. The Army had seen to it that Charley was well trained. He had graduated from the Schofield Barracks automotive school and had been able to squeeze in two special courses in the Post Ordnance shops before his outfit sailed from Oahu bound for Camp Shelby, Mississippi. In the South his officers saw to it that he got another school assignment and



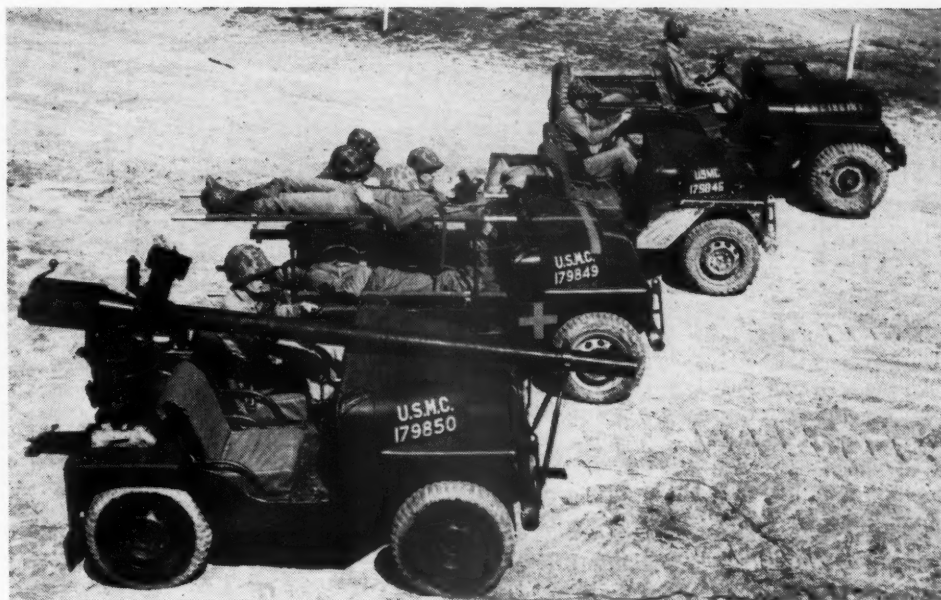
when he nailed down those stripes they were for being a real chief mechanic.

Now the war was forgotten and Charley was doing a good business selling oil and gas, doing lube jobs and repairing cars. No matter how big the job the people around Kaialua had come to know that "Sarge Charley" was the man to see when the old motors acted up.

One afternoon a very well-known and very rich Hawaiian haole (white man) capitalist left Honolulu in his pre-war Rolls Royce bound for a drive to his beach home on the other side of the island. At the wheel of the long black beauty was a Filipino driver. And as far as Mr. Big was concerned everything was perfect in the Paradise of the Pacific.

The big Rolls was down the Pali road and was rolling along toward the beautiful Hawaiian beach country when all of a sudden the motor konked out. The Filipino chauffeur did every-

*(Continued on page 105)*



Versatility of the Mighty Mite is shown in the above illustration.

# The Mighty Mite

The Marine Corps' new "truck, utility, quarter-ton, light-weight" is being produced by Mid-America Research Corp.

Motor Age's Washington News Editors Ray Stroupe (left) and Karl Rannells (kneeling) examine the undercarriage of this new military vehicle.

by Karl Rannells,  
Washington News Editor



**T**HE Marine Corps recently unveiled its "Mighty Mite," a squat, 1,500 pound vehicle (1,000 pounds less than a Jeep) which will do almost anything but fly. In fact, with the help of the Marine Corps helicopters, it flew. During the course of a demonstration before the press, it climbed an 87 per cent grade, served as a double-decker ambulance, went over an obstacle course, and towed a Jeep out of the mud. The Mighty Mite is 8 ft., 8 inches long, is powered by a 44 hp Porsche air-cooled engine and has four-wheel drive, each wheel independently sprung. It will carry a 500-pound payload while towing an additional 1,000 pounds.

# 1953 New Passenger Car Registrations by Makes by States\*

STATE AND MONTH	All-state	Buick	Cadillac	Chevrolet	Chrysler	De Soto	Dodge	Ford	Henry J	Hudson	Kaiser	Lincoln	Mercury	Nash	Oldsmobile	Packard	Plymouth	Pontiac	Studebaker	Willlys	All Others	Total
Alabama.....Feb.	3	421	72	1346	97	65	262	958	13	28	22	24	231	115	313	66	542	284	94	69	6	5,031
.....2 Mos.	6	776	158	2637	204	123	525	1823	36	73	56	55	469	236	582	128	1164	553	204	150	12	9,950
Arizona.....Feb.	8	146	29	319	46	21	69	225	6	20	14	8	60	34	70	30	122	83	23	23	13	1,389
.....2 Mos.	18	278	64	656	104	48	173	511	15	52	25	29	159	71	124	64	272	177	91	53	27	3,011
Arkansas.....Feb.	10	430	62	1220	97	105	245	934	21	51	18	16	200	193	237	48	719	335	151	65	5	5,162
.....2 Mos.	12	696	106	2072	165	196	427	1634	38	89	37	37	359	297	397	79	1353	583	308	110	12	9,007
California.....Feb.	1	3082	1034	8566	1102	727	1591	5228	87	377	305	390	1876	1202	2177	567	3066	2086	682	485	1182	35,772
.....2 Mos.	1	5645	2213	15960	2539	1598	3525	15271	182	951	648	838	4016	2764	4375	1218	7150	4608	1668	1011	2533	74,870
Colorado.....Feb.	3	352	86	866	114	63	210	660	4	66	15	38	171	102	244	64	388	273	68	52	18	3,854
.....2 Mos.	6	646	159	1479	241	144	426	1281	8	130	20	68	368	218	439	128	832	530	156	94	30	7,397
Connecticut.....Feb.	4	117	119	987	149	107	333	836	19	63	32	40	228	145	330	121	442	326	86	124	92	4,996
.....2 Mos.	7	769	284	1853	332	217	692	1817	51	147	82	85	490	344	614	227	980	758	234	206	161	10,343
Delaware.....Feb.	1	108	23	296	23	22	59	245	2	13	8	11	45	24	84	11	82	83	30	7	4	1,180
.....2 Mos.	2	183	51	626	69	56	116	514	9	25	17	21	110	59	140	19	218	197	94	15	15	2,554
Dist. of Col.....Feb.	104	46	355	38	24	69	307	2	20	6	19	43	22	129	14	319	96	9	9	4	1,635	
.....2 Mos.	181	101	633	90	59	168	845	8	46	14	37	94	38	206	44	818	187	50	22	11	3,452	
Florida.....Feb.	4	673	190	1741	196	121	400	1262	61	102	35	87	309	195	482	155	993	552	152	149	130	8,009
.....2 Mos.	8	1150	344	2944	462	301	884	3403	134	224	90	161	767	431	834	314	2048	1122	477	333	304	16,735
Georgia.....Feb.	724	123	2082	189	91	394	1452	24	57	31	50	315	101	469	87	791	596	111	72	11	7,750	
.....2 Mos.	1170	203	3409	326	192	810	2744	45	106	65	85	605	175	826	155	1790	1027	244	121	43	14,141	
Idaho.....Feb.	150	49	369	46	35	104	245	3	51	11	19	122	85	122	31	160	114	46	40	9	1,811	
.....2 Mos.	287	84	743	128	86	237	615	6	99	42	49	248	196	221	64	369	253	148	102	15	3,982	
Illinois.....Feb.	1	4504	1361	10377	1622	1503	3216	10374	98	1127	326	406	2947	2622	3101	1022	7052	3742	1453	452	102	57,608
.....2 Mos.	1	658	151	1847	225	182	393	1563	27	129	76	60	383	351	482	142	997	571	212	85	34	8,668
Indiana.....Feb.	1314	294	3972	564	487	1025	3752	73	284	177	143	880	794	976	309	2428	1335	685	201	47	19,740	
.....2 Mos.	985	221	3247	368	279	675	2645	27	100	55	65	641	418	761	159	1632	943	315	112	9	13,657	
Iowa.....Feb.	317	56	974	98	57	193	815	17	52	36	36	222	199	240	51	438	249	67	38	5	4,180	
.....2 Mos.	658	151	2151	233	180	483	1993	41	161	86	66	518	475	527	143	1177	607	245	88	13	9,996	
Kansas.....Feb.	420	64	1374	135	80	293	919	10	56	23	13	206	158	299	83	519	331	79	47	19	10,438	
.....2 Mos.	813	148	2572	258	164	654	1951	20	124	50	37	395	372	566	150	1126	680	222	107	19	14,907	
Kentucky.....Feb.	1	367	73	1347	98	82	251	955	16	19	23	20	184	104	226	72	574	359	101	47	8	4,907
.....2 Mos.	3	712	156	2601	217	203	621	2070	38	51	63	44	369	246	485	158	1359	754	295	97	17	10,495
Louisiana.....Feb.	81	12	283	26	20	57	195	14	15	5	9	63	33	66	14	130	69	16	30	4	1,142	
.....2 Mos.	182	40	706	84	56	190	551	29	52	25	22	162	84	151	37	390	204	67	75	9	3,117	
Maryland.....Feb.	523	93	1670	154	108	326	1257	29	93	35	42	245	202	369	130	825	413	103	96	29	6,542	
.....2 Mos.	850	186	2891	318	231	582	2541	64	181	72	80	556	385	612	222	1635	844	315	162	49	12,506	
Massachusetts.....Feb.	863	186	2177	303	290	591	1895	46	113	57	78	530	376	742	135	1119	767	212	118	181	10,559	
.....2 Mos.	1509	423	3740	551	541	1117	3404	93	219	104	156	1024	728	1363	255	2252	1565	461	197	240	19,942	
Michigan.....Feb.	2759	899	6255	709	559	1396	6257	65	428	157	113	856	909	1831	523	2754	2161	292	188	19	29,130	
.....2 Mos.	5323	1735	11173	1398	1104	2706	13027	138	795	358	365	2229	1842	3380	988	5711	4632	852	415	58	58,229	
Minnesota.....Feb.	840	174	2386	255	220	536	1902	14	103	54	45	441	319	570	168	1070	647	276	56	4	10,060	
.....2 Mos.	1220	286	3694	448	402	973	3592	25	185	113	86	681	489	866	292	2049	1112	557	108	11	17,189	
Mississippi.....Feb.	1	362	67	1060	97	47	157	801	6	34	11	20	157	61	193	47	509	256	101	31	5	4,023
.....2 Mos.	2	551	117	1766	167	95	278	1357	14	52	23	35	286	115	306	83	896	421	205	58	6	6,833
Missouri.....Feb.	430	65	1486	186	201	355	1830	33	62	26	46	427	306	339	121	1153	498	246	46	9	7,865	
.....2 Mos.	776	150	2723	292	338	611	3033	69	95	79	79	676	514	600	198	1916	797	427	64	14	13,432	
Montana.....Feb.	115	39	280	32	24	75	265	2	39	6	16	70	45	101	25	127	82	38	25	5	1,411	
.....2 Mos.	190	65	520	65	56	180	530	5	72	25	22	153	81	161	51	283	164	96	61	7	2,787	
Nebraska.....Feb.	345	74	1099	119	43	189	866	17	46	25	24	204	103	247	51	415	287	95	32	2	4,193	
.....2 Mos.	634	142	1723	220	106	333	1628	32	81	37	56	376	185	397	84	859	551	230	68	3	7,744	
Nevada.....Feb.	32	21	104	12	13	39	71	.....	3	1	5	17	28	37	13	43	28	9	10	7	483	
.....2 Mos.	64	34	218	34	32	82	164	.....	11	2	15	51	53	68	28	122	60	30	28	19	1,115	
New Hampshire.....Feb.	74	13	234	29	14	68	179	4	16	.....	10	49	33	55	13	91	66	22	24	5	999	
.....2 Mos.	142	29	447	54	45	129	381	8	42	5	13	88	68	101	31	202	162	48	49	11	2,055	
New Jersey.....Feb.	1105	297	2496	473	304	610	2125	42	162	69	67	719	413	773	293	1179	982	222	188	87	12,606	
.....2 Mos.	1888	616	4727	1059	723	1417	4998	111	418	184	172	1637	879	1361	645	2865	2190	688	395	181	27,154	
New Mexico.....Feb.	134	26	221	32	19	58	145	2	20	4	2	75	28	58	16	129	72	30	13	7	1,081	
.....2 Mos.	224	42	371	66	38	107	315	3	35	17	13	143	57	84	35	245	139	75	21	14	2,044	
New York.....Feb.	3680	827	6704	1326	1247	2247	4982	141	402	207	165	1678	1077	2201	726	3236	2492	573	525	479	34,895	
.....2 Mos.	6001	1733	11649	2814	2419	4345	9838	245	815	394	392	3363	2071	3921	1386	6845	4683	1374	915	748	65,751	
North Carolina.....Feb.	463	93	1321	116	86	306	937	18	48	25	25	240	126	273	96	474	361	83	124	12	5,229	
.....2 Mos.	964	224	2853	301	312	792	2811	54	110	78	64	685	320	675	229	1559	1003	376	312	33	13,759	
North Dakota.....Feb.	96	33	381	50	13	55	288	.....	10	4	8	50	34	61	17	174	92	34	12	1	1,413	
.....2 Mos.	237	66	773	117	56	183	770	3	32	12	21	127	95	156	52	457	227	118	23	2	3,527	
Ohio.....Feb.	2269	824	5647	725	520	1341	4177	63	327	154	141	1094	711	1409	448	2351	1729	473	328	46	24,577	
.....2 Mos.	4050	1211	10115	1545	1100	2771	8865	156	697	323	317	2232	1486	2639	882	5142	3369	1136	661	89	48,786	
Oklahoma.....Feb.	513	113	1662	93	118	224	1245	5	36	13	31	302	151	392	62	605	358	86	29	8	6,047	



# Current Passenger Car Price, Weight and Body Table

Following are prices at factory for cars with standard equipment as of April 25, 1953  
State or local taxes, transportation and finance charges and optional equipment are extra.

BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Delivered Price at Factory including Federal Taxes	Shipping Weight
<b>BUICK</b>					<b>DE SOTO†</b>					<b>KAISER</b>					<b>PACKARD (Continued)</b>				
Special 40					Powermaster 6					Manhattan					300				
Sedan, DeL., 2d	2010	189	2199	3675	Club Coupe	2166	168	2334	3495	Club Sedan	2395	202	2597	3235	Sed. Conv., 4d	2975	259	3234	3960
Rivra. Sed., 4d	2064	191	2255	3710	Sedan, 4d, 6p	2186	170	2356	3555	Sedan, 4d	2444	206	2650	3265	Sed. Pat., 4d.	3438	297	3735	4190
Riviera Cpe.	2102	193	2295	3705	Sportsman	2417	187	2604	3595	Traveler, 4d.	2542	213	2755						
Conv. Cpe.	2343	210	2553	3815	Stat. Wagon	2657	221	3078	3855										
					Sedan, 4d, 8p.	3018	233	3251	4070	DeLuxe					<b>PLYMOUTH†</b>				
Super 50										Club Sedan	2267	192	2459	3150	Cambridge				
Rivra. Cpe., 2d.	2387	224	2611	3845	Firedome 8					Sedan, 4d	2317	196	2513	3200	Coupe, 3p	1480	117	1597	2888
Rivra. Sed., 4d.	2466	230	2696	3905	Sedan, 4d, 6p	2453	190	2643	3705	Traveler	2315	204	2619		Suburban	1895	149	2044	3129
Conv. Cpe., 2d.	2751	251	3002	4035	Sportsman	2685	207	2992	3765					Club Sedan	1582	125	1707	2943	
Est. Wagon, 4d.	3149	281	3430	4150	Conv. Coupe	2891	223	3114	3965	Dragon				Sedan, 4d	1617	128	1745	2983	
					Stat. Wagon	3111	240	3351	3990	Hardtop	3628	296	3924	3320					
R'dmaster 70					Sedan, 8p.	3276	253	3529	4290						Crabbrook				
Rivra. Sed., 4d.	2971	283	3254	4100						LINCOLN					Club Coupe	1689	133	1822	2971
Rivra. Cpe., 2d.	3384	290	3674	4125	DODGE†					Cosmopolitan					Sedan, 4d	1717	135	1852	3023
Conv. Cpe., 2d.	3205	301	3506	4250	Mdowbrk. Spec.					Sedan, 4d	3226			4135	Belvedere	1895	149	2044	3027
Est. Wagon, 4d.	3694	337	4031	4315	Club Coupe	1816	142	1958	3100	Sport Coupe	3322			4155	Conv. Coupe	2040	160	2200	3193
Skyline Spt., 2d	4596	404	5000	4315	Sedan, 4d.	1855	145	2000	3196						Savoy	2028	159	2187	3170
										Capri									
<b>CADILLAC</b>					Meadowbrk.					Sedan, 4d	3453			4150	<b>PONTIAC</b>				
Series 62					Club Coupe	1927	150	2077	3135	Hardtop	3549			4165	Chieftain 6				
Coupe	3295	276	3571	4230	Sedan, 4d	1954	152	2106	3225	Convertible	3699			4310	Sedan, 2d	1788	168	1956	3341
Sedan	3384	282	3666	4225	Suburban	2019	157	2176	3195						Sedan, 4d	1843	172	2015	3381
Coupe De Ville	3691	304	3995	4320						MERCURY					DeL. Sed., 2d.	1885	175	2060	3356
Conv. Coupe	3830	314	4144	4500	Coronet 6					Custom					DeL. Sed., 4d.	1940	179	2119	3396
Eldorado	7196	554	7750		Club Coupe	1933	151	2084	3320	Sedan, 2d	2004			3405	DeL. Catalina	2112	192	2304	3421
					Sedan	1958	153	2111	3385	Sedan, 4d	2057			3450	Cust. Catalina	2174	196	2370	3421
Series 60										Sport Coupe	2117			3465	DeL. Conv. Cpe.	2242	202	2444	3571
Sedan	3969	336	4305	4415	Coronet 8					Monterey					St. Wg., 2 St. Pl.	2248	202	2450	3588
					Club Coupe	2039	159	2198		Sedan, 4d	2133			3425	St. Wg., 3 St. Pl.	2299	206	2505	3666
Series 75					Sedan, 4d	2059	160	2219		Coupe	2244			3465	St. Wg., 2 St. Gr.	2322	208	2530	3598
Imperial	5188	433	5621	4830	Diplomat	2190	170	2360		Convertible	2390			3585	St. Wg., 3 St. Gr.	2373	212	2585	3666
					Conv. Coupe	2314	180	2494		Station Wagon	2591			3765	Dix. St. Wg., Pt.	2378	212	2590	3626
					Sierra	2322	180	2502							Dix. St. Wg., Gr.	2452	218	2670	3626
<b>CHEVROLET</b>										<b>NASH</b>									
Special 1500					<b>FORD</b>					Rambler Super					Chieftain 8				
Bus. Coupe	1395	129	1524	3140	Mainline 6					Suburban	1841	162	2003	2555	Sedan, 2d	1858	173	2031	3421
Sedan, 2d	1479	134	1613	3180	Bus. Coupe	1400	122	1522	2977						Sedan, 4d	1913	177	2090	3456
Club Coupe	1485	135	1620	3140	Tudor	1497	130	1627	3057	Custom					DeL. Sed., 2d	1955	181	2136	3436
Sedan, 4d	1530	140	1670	3215	Ranch Wagon	1542	133	1675	3105	Stat. Wagon	1951			2119	DeL. Sed., 4d.	2010	184	2194	3471
Station Wagon	1845	165	2010	3420		1846	158	2004	3294	Country Club	1955			2125	2182	198	2380	3496	
					Customline 6					Conv. Sedan	1980			2150	Cust. Catalina	2244	202	2446	3496
De Luxe 2100					Tudor	1582	137	1719	3067	States'n Sup.					DeL. Conv. Cpe.	2312	206	2518	3626
Sedan, 2d	1564	143	1707	3215	Club Coupe	1591	137	1728	3046	Sedan, 2d	1966	178	2144	3025	St. Wg., 2 St. Pl.	2318	207	2525	3686
Club Coupe	1581	145	1726	3190	Fordor	1628	140	1768	3115	Sedan, 4d	2000	178	2178	3045	St. Wg., 3 St. Pl.	2369	211	2580	3756
Sedan, 4d	1615	146	1761	3250	Mainline 8					States'n Cust.					St. Wg., 2 St. Gr.	2392	213	2605	3686
Sport Coupe	1805	162	1967	3295	Bus. Coupe	1471	128	1599	3058	Sedan, 2d	2121	188	2309	3050	St. Wg., 3 St. Gr.	2443	217	2660	3756
Convertible	1921	172	2093	3435	Tudor	1567	135	1702	3126	Sedan, 4d	2144	188	2332	3070	Dix. St. Wg., Pt.	2448	216	2684	3716
Station Wagon	1950	173	2123	3450	Fordor	1613	138	1751	3171	C.C. Sedan, 2d	2237	196	2433	3095	Dix. St. Wg., Gr.	2522	222	2744	3716
Sta. Wg., St.	2090	183	2273	3495	Ranch Wagon	1917	163	2080	3406										
					Customline 8					Amb. Super					<b>STUDEBAKER</b>				
Bel Air 2400					Club Coupe	1662	142	1804	3121	Sedan, 2d	2314	207	2521	3410	Champion				
Sedan, 2d	1669	151	1820	3230	Tudor	1653	141	1794	3133	Sedan, 4d	2350	207	2557	3430	Custom				
Sedan, 4d	1720	154	1874	3275	Fordor	1698	145	1843	3193						Sedan, 2d	1585	150	1735	2690
Sport Coupe	1883	168	2051	3310	Country Sed.	2076	176	2252	3539	Amb. Cust.					Sedan, 4d	1615	152	1767	2710
Convertible	1998	177	2175	3470						Sedan, 2d	2477	218	2695	3450	DeLuxe				
<b>CHRYSLER†</b>					Crestline 8					Sedan, 4d	2498	218	2716	3480	Sedan, 4d	1675	156	1831	2700
Windser 6					Victoria	1941	164	2105	3250	C.C. Sedan, 2d	2602	227	2829	3550	Coupe, 5p	1705	158	1863	2735
Club Coupe	2266	176	2442	3600	Sunliner	2043	172	2215	3334						Regal				
Sedan, 4d, 6p	2285	177	2462	3660	Country Sq.	2203	185	2388	3609	DeLuxe 88					Sedan, 2d	1755	162	1917	2715
Twn. and City	3026	233	3259	3960						Sedan, 2d	2068	196	2262	3603	Sedan, 4d	1785	164	1949	2745
Sedan, 4d, 8p	3160	243	3403	4170	HENRY J					Sedan, 4d	2126	201	2327	3642	Coupe, 5p	1790	165	1955	2700
					Corsair										Convertible	1940	176	2116	2760
Wind. DeL. 6					Sedan, 2d	1379	120	1499	2395	Super 88									
Sedan, 4d	2498	193	2691	3775	DeL. Sed., 2d	1553	133	1688	2445	Sedan, 2d	2189	206	2395	3628	Commander				
Newport	2781	214	2995	3775						Holiday	2252	210	2462	3673	DeLuxe				
Conv. Coupe	2987	230	3217	4005	HUDSON					Conv. Coupe	2448	225	2673	3661	Sedan, 2d	1910	179	2089	3055
					Wasp										Sedan, 4d	1940	181	2121	3075
New Yorker 8					Sedan, 2d	2063	201	2264	3350	98					Coupe, 5p	1945	182	2127	
Club Coupe	2897	223	3120	3925	Sedan, 4d	2106	205	2311	3380	Sedan, 4d	2552	234	2788	3779	Regal				
Sedan, 4d, 6p	2924	225	3149	4005	Club Coupe	2106	205	2311	3340	Holiday	2771	251	3022	3893	Sedan, 4d	2020	188	2208	3095
Newport	3238	249	3487	4020						Conv. Coupe	2963	266	3229	4119	Coupe, 5p	2025	188	2213	3040
Twn. and City	3620	278	3898	4285	Super Wasp										Land Cruiser	2120	196	2316	3180
Sedan, 4d, 8p	4026	308	4334	4510	Sedan, 2d	2203	210	2413	3460	Clipper					Convertible	2175	199	2374	3120
					Sedan, 4d	2252	214	2466	3480	Club Sedan, 2d	2334	204	2534	3685					
N. Y. DeL. 8					Club Coupe	2252	214	2466	3455	Sedan, 4d, 6p	2384	204	2588	3715	WILLYS				
Club Cpe.	3030	233	3263	3925	Hollywood	2573	239	2812	3525	Clipper DeL.					Aero Lark, 2d	1500	146	1646	2487
Sedan, 4d, 6p	3057	235	3292	4025	Conv. Brghm.	2792	256	3048		Club Sedan, 2d	2471	210	2681	3705	Aero Lark, 4d	1580	152	1732	2507
Newport	3392	261	3653	4025						Sedan, 4d, 6p	2521	214	2735	3745	Aero Falcon, 2d	1640	156	1796	2507
Conv. Coupe	3664	281	3945	4295	Horn														

# Current Engine and Tune-up Specifications

[illegible]

## ABBREVIATIONS

- Powerglide chassis model available at extra cost.
- Hydramatic chassis model available at extra cost.
- 121<sup>1</sup>/<sub>2</sub>; 125<sup>1</sup>/<sub>2</sub>. (b)—Off seat.
- 14B when hydraulic lifters are used.
- Dwell meter for setting point opening is not recommended.

(g)—Series 40, 131 $\frac{1}{2}$ ; Series 50, 18 when equipped with Dynaflo transmission.  
(h)—Top ring 3 $\frac{1}{2}$ ; second ring 1 $\frac{1}{2}$ .  
(i)—New Yorker 125 $\frac{1}{2}$ ; Cust. Imp. 133 $\frac{1}{2}$ ; Crown Imp. 145 $\frac{1}{2}$ .  
(j)—Left side to be 1 $\frac{1}{2}$  to 1 $\frac{3}{4}$  higher than right side, within these limits.

j) — Upper  $\frac{1}{2}$ ; lower  $\frac{1}{2}$ .  
 k) — With heater.  
 m) — Al-A5; CH-J8; AC-  
 n) — 2602, 25; 2606, 27.  
 p) — 7.0 with std. trans.;  
 trans.  
 q) — Top  $\frac{2}{3}$ ; bottom —  $\frac{1}{3}$ .  
 r) — 114<sup>a</sup> — 119<sup>a</sup>.

5. with auto.

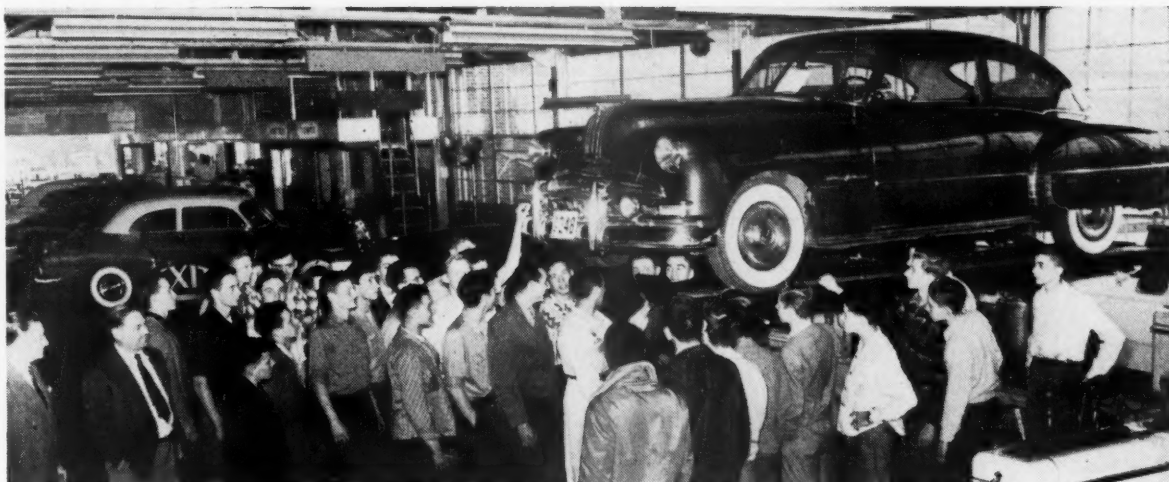
(s)—VD on D46; FP on D47.  
 (t)—C56, 58.5–61½; C59–61½.  
 (u)—115–3800 with std. trans.;  
     with Hydra.  
 (v)—118–3600 with std. trans.;  
     with Hydra.  
 (w)—7.0 with std. trans.; 7.7 with  
 (x)—6.8 with std. trans.; 7.7 with

Hydra.  
Hydra.

(y)—.018 opening; .020 closing.  
(z)—.003 opening; .005 closing.  
A—After. AA—Automatic adjust.  
AC—AC Spark Plug Co.  
AL—The Electric Antolite Co.  
B—Before. C—Cold.  
CB—Crankshaft balancer.  
CH—Champion Spark Plug Co.

ent.

**DC**—Dampert timing cover.  
**Fly**—Flywheel.  
**FP**—Crankshaft fan drive pulley  
**H**—Hot.                      **P**—Positive.  
**N**—Negative.  
**TC**—Top center.  
**VD**—Vibration damper.  
**VTS**—Valve train solid.



Students from auto mechanics class gather around to learn details from George Tluman, service manager.

# Project for Teen-Agers

by Albert Keshen

Peters, third from left, was honored for sponsoring an art exhibit for high school students in Hackensack.



**This shop gains prestige and good will by conducting high school students on teacher-guided tours to learn details of servicing and reconditioning work.**

**B**Y encouraging high school students to look over his machine shop and servicing facilities and supporting 'teen-age community projects whenever possible, W. H. Peters, car dealer of Hackensack, N. J. has gained a lot of prestige and good-will.

Mr. Peters has extended an offer to all high schools throughout Bergen County to have students in their auto mechanic classes go through his shop on an extensive tour. These trips begin about 2 o'clock in the afternoon, with classes being dismissed an hour earlier for the boys and they are taken on the dealer's truck to the plant.

There they are shown throughout the shop while a barrage of questions is directed toward the tour guides, George Tluman, service manager and Jules Fritsche, general sales manager. They go into details on motor analysis and the principle steps used in rebuilding worn-out cars. The safety element is also emphasized through films, supplied by manufacturers.

Refreshments of ciders and doughnuts are served by the company and when the boys leave they are impressed with the large amount of work done and the necessary skills to acquire in learning auto body and reconditioning pro-

*(Continued on page 76)*





by Jack Montgomery, Technical Editor

- Chevrolet Truck Leaks at Front
- '49 Olds Has Noisy Tappets
- Overhauled Olds Burns Excess Oil
- Question on 1912 Buick
- Increasing Horsepower on Olds
- Dodge Lacks Power, Overheats
- Cadillac Vibrates at 38 mph

### Chevrolet Truck Leaks Lubricant at Front Bearing

*We are having trouble with a 1946 2-ton Chevrolet that leaks transmission lubricant at the front main drive gear bearing. We have installed a new matched set of gears and installed a new oil slinger with a new bearing and still the trouble persists. Then we changed the oil—still leaks. We also drilled a vent hole in the top cover bolt and still no success.*

*What can be done to prevent this oil leakage?*

*Stiltz Service Station  
Glen Rock, Penna.*

**A**BOUT the best way to fix the leak is to install a shielded bearing on the main drive gear;

when installing the front retainer, use a gasket compound on the gasket to make a tight seal.

You might also try using the type seal that Pontiac uses on their main drive gear. The Chevrolet shaft would have to have a groove cut in it to house the seal.

### Valves Noisy on '49 Olds; Tappet Clearance Doubled

*I have a problem on a 1949 Oldsmobile 88. I hope you can help me.*

*The valves are very noisy. It may go for a couple of days and be nice and quiet, then they will tap terribly. Has there been any change in the valve mechanism that I could make to overcome this trouble?*

## READERS'

# TROUBLE

*I have ground the valves, installed all new ones; cleaned all varnish from the hydraulic lifters; checked them for leaks and also checked the valve springs. With the hydraulic lifters drained of oil, I have approximately doubled the 0.070 clearance, which I also don't understand. I also don't know how to eliminate this excessive clearance because I installed all new valves.*

*Earl P. Miller,  
Glen Gardner,  
New Jersey*

**N**O changes have been made on the Oldsmobile valve mechanism to date. Since this engine runs quiet at times, it would seem like dirt was in the system, causing the lifters to fail once in a while.

I would suggest changing the oil filter and using a different brand of heavy duty #30 oil. It is hard to determine why you have so much tappet clearance. Compare the length of your push rods with the new ones. Yours may be worn.

Or, you could remove the head and sink the seats deeper. The easiest way would be to have the rocker arm supports ground rather than pulling the head.

### Overhauled Olds Burns One Quart in 300 Miles

*We overhauled an 8-cylinder Oldsmobile recently. Installed new rings, pins, etc. The cylinders had very little taper. This job burns*

**FOR ADDITIONAL SERVICE INFORMATION REFER TO CHILTON'S**

## CLEARING HOUSE

# SHOOTING PROBLEMS



such type of self starters as early as 1912. Would you have any information on this? This gadget was supposed to be operated with a Prest-O-Lite tank the same as used for the lights.

Carl S. Peterson  
Zorn Auto Company  
Osceola, Wis.

**Y**OUR customer was right. The Prest-O-Lite Company had a system which employed a special electrical connection for igniting the gas. It permitted starting of the engine by injection into each cylinder a measured amount of Prest-O-Lite gas, which was exploded by pressing a button on the ignition switch. A reducing valve was used to reduce the pressure from the tank to the cylinder to two ounces.

### How to Increase Horsepower On 1950 Oldsmobile 88's

Can you give us any information on the increase in horsepower on a 1950 Oldsmobile 88 Hydramatic drive by installing 1952 Oldsmobile 88 rocker arms and shafts, intake manifold and quad carburetor? I would also like any information you can give me pertaining to the above changes.

J. L. Hansen  
Marcola, Oregon

**I**T would be necessary to install a 1952 camshaft along the rocker arm assemblies. Otherwise, you wouldn't gain anything. You should also change the pistons as the later

engines have pistons which take heavier loads.

The above changes, with the four-barrel carburetor, would make your engine develop about 145 hp.

### This Dodge Lacks Power and Overheats on Hills

I wish to increase the power in a 1951 Dodge Meadowbrook. It has been suggested I shave the head. I wonder if you could tell me the correct amount that should be taken off as it is not available here.

While this same car is idling, or running on the level, it runs very cool. As soon as I begin to climb, it begins to heat up and it doesn't take much to get it overheated.

Thomas Clifford  
Reno, Nev.

**S**INCE this car overheats on pull and is sluggish at all times, I would suggest checking for late ignition timing and also make sure the vacuum advance is working properly. Then remove the head and grind the valves and clean the carbon. Plane .040 inch off the head. You might also install one step richer jets in the carburetor.

(Continued on page 138)

about a quart of oil every 300 miles. Can you explain the trouble?

R. H. Erny  
R. H. Erny & Co.  
Philadelphia, Pa.

**Y**OU didn't mention anything about the bearings or valve guides. I would suggest removing the oil pan and making an oil pressure test on the bearings. Also check for possible leakage around the gaskets.

Don't overlook the vacuum pump diaphragm. If this diaphragm is cracked, the engine vacuum will suck the oil out of the crankcase.

### Customer Correct About '12 Buick With Self Starter

One of our customers claims he had a 1912 Model 40 Buick that had a Prest-O-Lite starter on it and that to start the car all you had to do was to push a gadget on the dash and press a button and the car would start without using a crank.

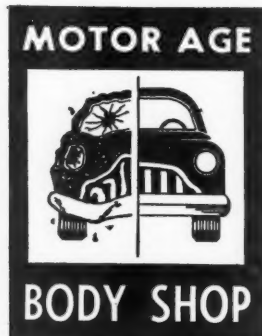
We do not think there was any



## MOTOR AGE FLAT RATE AND SERVICE MANUAL

Chilton's MOTOR AGE, May, 1953

# The Dent Pays the Rent in June



by Arthur H. Nellen, Jr.  
Managing Editor



The "Dents Out" campaign plus a sincere sales effort will increase body business this Spring

**A**N old standby for cartoonists is the flustered wife who rushes to the local body shop with the family car to have a dent removed before hubby sees it. But this is more than a joke—it's big business! In 1951 there were 5,100,000 accidents reported in which damage amounted to less than \$25.00. Probably there were as many more minor accidents which were not reported. The minor damages—scrapes, torn moldings, small dents, and so forth can amount

*(Continued on page 114)*

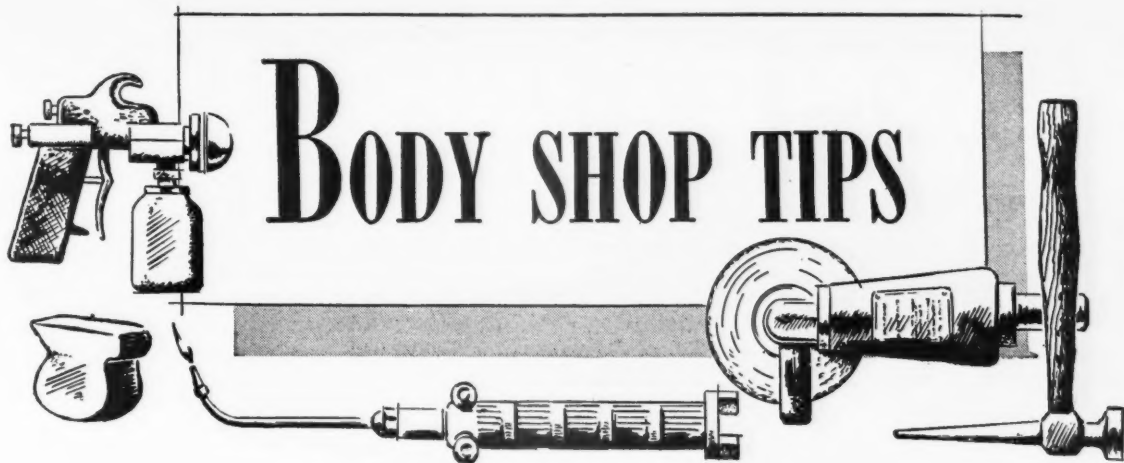
Show customers dents which have been in their cars for months. Explain why they should be fixed!

Send "Dents Out" cards. Leave estimate tags in cars. Wear "D.O.O.F." buttons.

Post the "Dents Out" signs where the customers can see them. It's a job of educating the motorist as well as selling him.







# BODY SHOP TIPS

## BODY SHOP TIPS

are worth

# \$7.50

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.

### Center Punched Metal Aids In Faster, Easier Burning

When burning holes in heavy metal, the cut can be started much easier and faster, if at first you center punch the metal and then start the cut on the edge of the metal raised by the center punch. In doing this, you not only save time, but also gas and oxygen. *Marlin F. Preus, R.D. #2, New Kensington, Pennsylvania.*

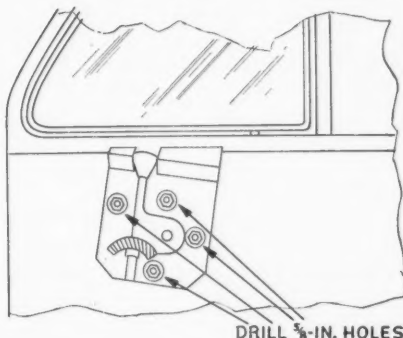
### Realigning a Nash Which Has Been Hit on the Rear

I work on a lot of Nash automobiles and find that one thing which causes a lot of trouble is an impact on the rear end. This often causes a bent rear sway bar bracket. Then the body is pulled over and the tracking is changed. To correct it would mean straightening the bracket or the frame, however this requires quite a lot of time and trouble. I cut the sway

bar tube in half and insert a smaller tube inside, recheck the tracking to be sure that it is correct and then replace the sway bar on the lower pin in the housing and weld the tubes together securely. This solves the problem and saves hours. *E. E. Jones, 24 Blackhawk Hills Drive, Rock Island, Illinois.*

### Time Saver For Replacing Vent Window Regulator

We have found a saving of a good  $\frac{3}{4}$  of an hour when replacing the half moon gear on the vent window regulators of 1951 Lincoln sedans by drilling three  $\frac{5}{8}$ -inch



holes in the outside of the door frame. This enables us to use a  $\frac{7}{16}$ -inch socket to get to the nuts that hold this gear in place. *Morton A. Collins, N.E. Cor. 10th & Cherry Sts., Phila., Pa.*

### Wax Aids in Taping On Two-Tone Jobs

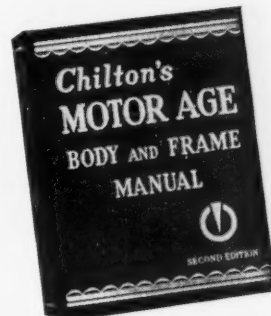
When we are doing a two-tone paint job and are pressed for time, this trick is helpful in preventing the masking tape from pulling off a new layer of paint.

On cars which have no belt molding all the way around, it is sometimes necessary to put the tape directly on new paint before starting on the second part of the two-tone job. We have found that after painting the lower section, before taping the upper section off, we spread regular wax on all the strips where the masking tape is to go. Then we put the tape over the wax. After the job is done, there is no danger of the masking tape pulling off the fresh paint. The wax does not prevent the tape from sticking, and it saves a lot of time when we have to push a job through fast. *Jim Newcomer, Ellis Automotive Service, 1045 East Princess Street, York, Pa.*

### Lid and Rod Makes Handy Paint Strainer Holder

I took a lid of a one-gallon can and four pieces of  $\frac{1}{8}$  welding rod, three about 11 inches long and one about 16 inches long, and made this paint strainer holder.

(Continued on page 58)



Other valuable information of the type presented each month in The BODY SHOP is available in Chilton's Motor Age Body and Frame Manual.



This view of Richter's shop shows the advertising signs style, which draws motorists' eyes as they drive by on the Blackhorse Pike.

## What's In A Name

# The AMAZING Auto Paint Shop



These signs plus the "before-and-after" Model T make the Amazing Paint Shop a landmark.

Upper. The shop has its own stock car which competes in local races. Lower. The completed \$39.95 paint job is Richter's best form of advertising.



Determination and quality work built this shop from almost nothing into a thriving business

**W**HEN Elwood Richter took over the bankrupt Amazing Auto Paint Shop, Blackwood, New Jersey, in September of 1951 he had two cars in the shop—both brought back by dissatisfied customers.

But Richter, who worked for the former owner as a body and fender man, was determined to make a success of it. It was not an easy task. Car dealers had lost confidence in the shop and were taking their cars elsewhere, although at a higher price.

Private owners didn't come in droves, but when a customer did come along Richter made it a point to drive the newly-painted car to the dealers who had once been steady customers to

*(Continued on page 122)*

# *Again Studebaker sets the style trend*

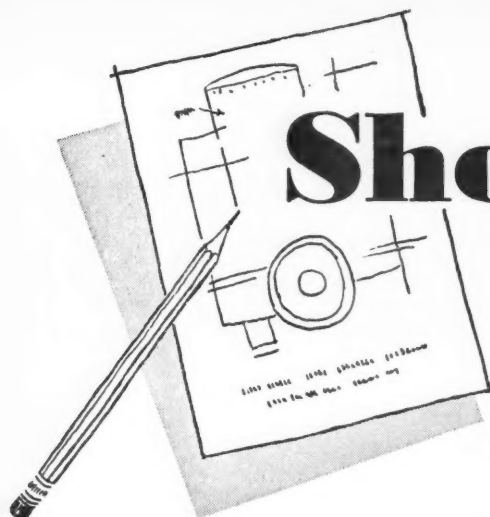


The most revolutionary change  
in car designing  
since the first postwar Studebaker  
swung on the scene

## **1953 STUDEBAKER**

*The new American car with  
the European look!*





# Shop Kinks

If you've come upon an original idea for making a job easier, a special tool, short cut on a job or any trick of value to other readers, write it down and if necessary, make a rough sketch. Just make it clear. Send it to Motor Age. If we can use your Kink it may bring seven-fifty, possibly 25 dollars. All submissions become the property of Chilton Company. Because of the numbers received, no entries can be returned.

**For The Best Kink Published Each Month . . . \$25**  
**For All Kinks Published Each Month . . . \$7.50**

## Regular Transmission Uses Truck Cluster Gear Bushing

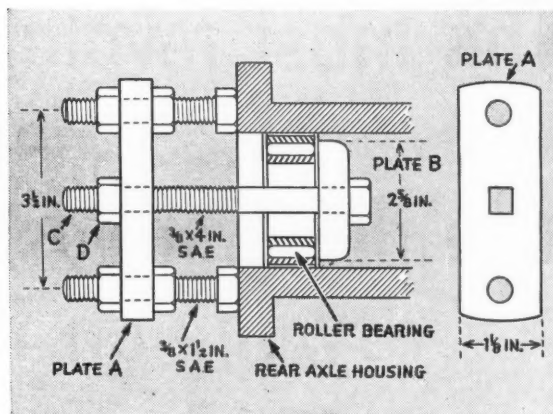
When overhauling a regular three-speed transmission, sometimes the counter gear bushings are worn but the gear itself is all right. (Chevrolet does not list bushings for this gear; you have to buy the whole assembly, which comes to about \$15.50). I get a set of (2) bushings that are made for counter shaft, four-speed truck transmission gears, 1939-1947, and knock out the worn bushings. Then press the new ones in and hone if needed. These two bushings cost about \$.75. *Harry Klosinski, Marsh Motor Sales, Route 1, Orwell, Ohio.*

## Making Valve Guide Tool From Chevrolet Piston Pin

In shops where valve guide tools are not always available, I have found an easy tool for replacement. Use an old piston pin found in 1937 to 1952 Chevrolets. The inside diameter of the pin is the same as the outside diameter of the valve guide. The solid surface of the pin drives against the valve guide. On intake guides, drive until the end of the pin stops against the head. The depth is correct on the exhaust. It is necessary to grind the pin to the desired length.

(Continued on page 72)

## Best Kink of the Month



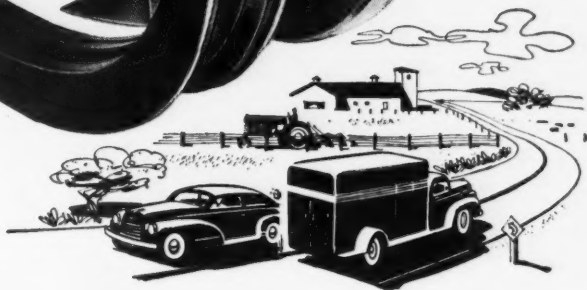
## Rear Axle Bearing Extractor

This Buick rear axle bearing extractor can easily be made from two old Chevrolet or Pontiac spring shackle side plates. The only cutting required is to cut and shape the plate "B" as shown. To use this puller knock out the two grease retainers. Then slip the plate "B" and bolt "C" behind the roller bearing. Then slip on plate "A," tighten "D" next and the bearing will draw out. *William Avellino, Avellino Brothers, 2026 Waverly Street, Philadelphia.*

# NEW LIFE

for any engine!

Solid Chrome  
on BOTH  
Top Compression  
and Oil Rings Gives  
Complete Protection  
Through Entire Area  
of Ring Travel



## Perfect Circle

### 2 in 1 chrome piston ring set



THE STANDARD  
OF COMPARISON

**Give your customers** new engine life...sustained power and better oil economy...thousands of extra miles of driving pleasure. Always install Perfect Circle's 2-in-1 Chrome Piston Ring Set on every re-ring job!

**For 2-in-1** has established new standards of piston ring performance. It seals compression, controls oil for over twice the life of ordinary sets. And only 2-in-1 furnishes an alternate HiPressure spring with each oil ring to assure positive oil control even in badly worn cylinders.

**No doubt about it...**2-in-1 is your best guarantee of lasting customer satisfaction! Perfect Circle Corporation, Hagerstown, Indiana; The Perfect Circle Co., Ltd., Toronto, Ontario.

One pin only is required. It can be turned end for end. Tight fit of the pin to the guide prevents breaking of the guide. *Rocky Hamilton, P.O. Box 112, Jasper, Missouri.*

## Gear Shift Rattle Removed By Inserting Rubber Hose

Here is a kink that stops gear shift rattle in most Chevrolet passenger cars. Cut a 1/4-inch piece of rubber air hose and with the gear shift lever removed, place it just behind the knob as indicated in the

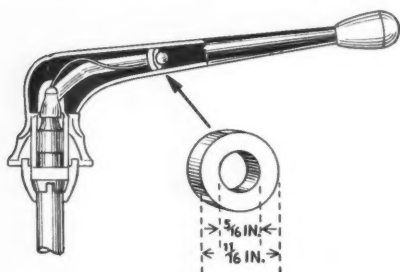


illustration. Attach the gear shift lever and the rattle is gone. Some transmission noises are also eliminated by its rubber contact with the hollow lever.

We have used this idea on several cars and not one has failed to eliminate the noise. *Theodore Rickard, Ser. Mgr., Bryant Chevrolet, Inc., 102 S. Sixth St., Vincennes, Indiana.*

## Uses Brake Adjusting Tool To Pry Stuck Valve Cover

On motors where the valves are located on the side, at times it becomes necessary to remove the valve cover. You may find that someone has put on cement, making it hard to pry off as it is in such an awkward position. You can't get at the right angle to pry it off. I use a brake adjusting tool to remove them when they are stuck that fast. *Eddie Ondias, 23 & K Sts., Galveston, Texas.*

## Lubricant on Dimmer Switch Makes Old One Work Better

I have had several dimmer switches that stuck; when pressed, the lights go out or won't dim properly. Many times, instead of

putting on a new switch, I drill a 1/8-inch hole in the switch barrel and pump oil on the switch. This makes the switch work like new and also makes the contacts work better. *Gumbel's Auto Service, R.F.D. 7, Olney, Illinois.*

## Eliminate Transmission Noise Caused by Speedometer Cable

In the past we have encountered trouble in removing the noise in the transmission on various makes and models of automobiles and have gone to the trouble and expense of completely disassembling and reconditioning same to find that we still had the noise that the customer complained of, namely — a grinding noise in all gears, particularly high gear. After considerable research and time, it was found that the noise we were trying to eliminate was not caused by worn or damaged parts in the transmission but natural noise being telegraphed from the transmission and drive train through the speedometer cable that was attached by a bracket to the transmission or overdrive housing.

To eliminate this condition, we found that by either replacing the mounting bracket or supporting bracket of the speedometer cable housing and applying tape or insulating material to all metal attaching parts we have made a lot of customers happy at a small expense and corrected their trouble at the same time. *Harry W. Hulett, Ser. Mgr., Dallas Nash, Inc., 2200 Ross Ave., Dallas, Texas.*

## Windshield Glass Sealed With Aid of Welding Rod

This is a shop kink that we have found very satisfactory for late model cars. The following directions are for sealing the windshield glass.

Loosen the garnish molding. Cut 1/8 inch welding rod in 4-inch length. Hammer one end flat. Use as wedges between glass and seal, spaced about 1 1/2 inches apart. Heat some top sealer and pour in

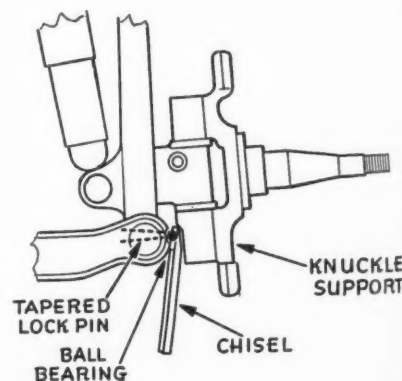
between the glass and the rubber seal. Clean off the surface with a solvent. Tighten the garnish molding. This has been proven to be very successful around our shop. *Roy E. Davis, Box 1115, Quincy, California.*

## Cardboard Prevents Splash In Cleaning Valve Chamber

An easy way to clean valve chambers on L-head engines is to take a piece of cardboard about 15-inches long and 6-inches wide. Make a small hole in the center for the air hose nozzle. Wash the chamber with cleaning fluid then blow out the chambers by holding the cardboard close to the top of the valve chamber and about 4-inches from the bottom with the air nozzle through the small hole. The gooey mess will deflect off the cardboard and fly down — not up into your face. *Chester Pearl, Dave Reese Olds, Inc., 4020 Locust Street, Philadelphia, Pennsylvania.*

## Ball Bearings Help Drive Out Lower Support Arm Lock Pin

In removing the lower support arm pins on some 1939 Dodge cars and Plymouths and also '38 to '39 Chryslers and DeSotos, a lock pin must first be driven out from the spindle side of the support arm. To save removing the backing plate



and spindle in order to drive the lock pin out with a punch, I use one or more ball bearings wedged against the lock pin with a chisel between the spindle arm. Drive this chisel until the pin can be wiggled out with a vise grips. *Victor O. Kitsmann, 226 So. Thornwood Ave., Davenport, Iowa.*



# DON'T DO IT THE HARD WAY! USE A HYDRAULIC LIFT-POST

## MORE PROOF that Blackhawk builds the best in each jack class

Everyone recognizes that fast wheel service demands lifting modern cars from the bumper! And for this lifting method, major oil companies, independents and shops everywhere say LIFT-POST is the fastest and sturdiest. Here's why:

You just wheel LIFT-POST into position, engage bumper hook. A few easy strokes of pump handle at top safely raise modern, deep-skirted fender and body out of the way, exposing the FULL wheel. No mechanical gadgets. No legs to adjust. You stay on your feet . . . off your knees. No need to remove handle to release valve. Adjustable safety toe protects bumper. Yes, for more safety, speed, ease — and greater dependability — order LIFT-POST. It's your key to faster wheel service.

**ENOUGH  
OF THE RIGHT JACKS**  
*...key to faster service*

Money-making shops and stations know that it pays to have a balanced team of *enough* hydraulic jacks on the floor. That way you can handle *all* types of vehicles and service jobs faster . . . end delays and assure maximum returns on flat-rate jobs. Blackhawk builds a size and type for every purpose — and offers you the best buy and most dependability in each class! So don't settle for less — get the right combination of enough Blackhawk jacks. Order from your Blackhawk jobber NOW!

### S-4 — KEY TO FASTER SERVICE ON RUGGED MECHANICAL WORK

The most dependable, popular 4-tonner ever built. Has famous "Lightning Lift," built-in spotlight, safety lock-on controls, one-piece power unit. These, plus other unbeatable extras, assure longer life, faster action.



**S-23 — KEY TO FASTER 1½-TON LIFTS —**  
Today's best buy in curb jacks! Extra-long chassis gets under overhangs easier. Larger pump plunger gives more strokes, even on super-balloon flats. Swivel saddle. Exclusive safety handle.

# BLACKHAWK®

Products of  
Blackhawk Mfg. Co.,  
Dept. J 653  
Milwaukee 1, Wis.

A 30-foot high futuristically designed "Pylon of Power" was exhibited, demonstrating to visitors the vast amount of engineering research that must be maintained to build the precision electrical parts demanded by the American modern automobile.

Each car factory having an exhibit showed four new models,

many of which were custom-built especially for the show. In addition, engineering exhibits were on display on every car maker's section. One of the features of the show was the D'Elegance, an original prototype two-passenger sports coupe which was unveiled by Chrysler Corporation. It is a functional automobile, designed to allow

Chrysler stylists and engineers complete freedom in their ideas so long as they could be translated into a soundly engineered automobile. It has a Chrysler Fire Power V-8 engine.

Not too far distant at the Grand Central Palace, the International Motor Sports Show, unveiled many of the most prominent sports cars of the American makers, including many from Detroit. Sponsored by Herb Shriner, well-known radio and television personality, the show featured exhibits from a number of foreign car factories, plus leading distributors in the area. Some of the cars on exhibit included the Rover, powered by a turbo-jet engine; the Austin-Healey, Donald Healey's latest in the sports car field; the Brooks Stevens' Excalibur J; the first new Bugatti model to be seen since before the war; the Sunbeam Alpine, a new two seater sports car introduced by Rootes Motors, Ltd., of England and many other interesting foreign makes.

In addition to these foreign cars were many exhibits of accessories, speed equipment, and other fascinating exhibits. One car which drew considerable attention was the "Mota," which derives its power from a Polade power plant, a new concept of automotive engineering design. Unusual performance is claimed for this car, which makes use of a gasoline engine—alternator driving an electric motor.

Gold Medal Awards were presented to the outstanding contributors in the field, with trophies going to those in private competition. The 1914 Stutz Bear Cat, owned by Tony Koveleski, of Scranton, Penna., received first prize in the antique class. In the classic field, the 1937 Cord, owned by Dr. Earl Furman of East Orange, N. J., took first place. Tommy Foster of Pontiac, Mich., received top hot rod honors for his 1932 Ford with a Cadillac engine. In the sports car competition class, first prize went to a 1952 Siata, owned by John Perona of New York. Special Awards went to Gregoire, Briggs-Cunningham, Vignale, Bertone, and Ghia of Turin for achievement in styling and body building and to Howard Durrin and Brooks Stevens for their sports car contributions.



**NOW YOU CAN**  
*Re-Use*  
**THE DRIVE SHAFT**  
**TWO OR MORE TIMES!**

*National's* **NEW "Special Model"**  
**Bushing & Seal Assemblies**  
**Make Possible Multiple Repairs**  
**with Original Shaft On Both Standard**  
**Transmission & Power-Glide Models!**

**FOR DRIVE-LINE REPAIRS OF**  
**MOST CHEVROLET CARS & PICKUPS**  
**AND SOME GMC PICKUPS**

**SPECIAL TEMPERED**  
**STEEL SLEEVE PROVIDES NEW**  
**LONG-WEARING BEARING SURFACE!**

This steel sleeve fits over the worn surface of the original drive shaft. This restores drive line to its original efficient operation enabling thousands of additional miles of service.

The New Specially Engineered Seal of this model minimizes the possibility of the transmission running dry and damaging gears and bearings. It also prevents dilution of differential lubricant due to transmission oil leak.

**Proven Nationally by**  
**Millions of Satisfied-Customer Miles!**  
**Sold Nationally by Leading Automotive Wholesalers**



**SPECIAL MODEL M-104 M-106**  
(Cut-Away Shows Bronze Bushings)

**Like National's Famous:**  
**M-101 and M-102, This**  
**"Special Model" M-104 and**  
**M-106:**

- Saves Buying A New Drive Shaft!
- Provides Greater Bearing Surfaces for Long Life Repairs!
- Installed in One Hour! Eliminates Tearing Down Differential!
- Precision Made of Finest Materials!
- Boosts Your Repair Profits With Quick Low Cost Repairs!

Write or Wire for Information

**NATIONAL MACHINE WORKS, INC.**  
P. O. BOX 4305 MANUFACTURER AUTOMOTIVE PRODUCTS OKLAHOMA CITY 9, OKLA.

ers  
so  
ted  
no-  
ver  
  
and  
nal  
any  
ars  
ing  
by  
and  
fea-  
of  
ing  
of  
the  
en-  
nald  
car  
bur  
l to  
the  
ater  
otes  
any  
.  
cars  
ries,  
asci-  
hich  
the  
ver  
new  
ring  
e is  
akes  
rna-  
  
pre-  
tribu-  
phies  
peti-  
Cat.  
ran-  
ce in  
assic  
Dr.  
N. J.,  
er of  
t rod  
th a  
s car  
went  
John  
pecial  
iggs-  
, and  
nt in  
d to  
evens  
tions.  
  
, 1953

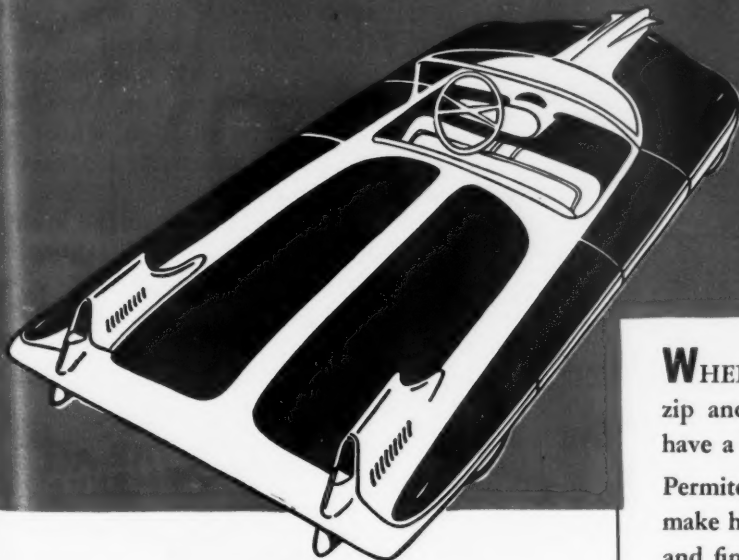


FOR SMOOTH FLOWING POWER



PERMITE

PERMITE PISTONS



## PERMITE REPLACEMENT PARTS

PISTONS • PISTON PINS • VALVES • VALVE GUIDES •  
VALVE STEM KEYS • VALVE SPRINGS • WATER PUMPS  
• WATER PUMP PARTS • CYLINDER SLEEVES  
AND ASSEMBLIES • TIE ROD ENDS • SPRING  
SHACKLES • KING BOLT SETS • BUSHINGS •  
MUFFLERS AND CLAMPS • TAIL PIPES.



**W**HEN you make a customer's old car perform with the zip and power of the newest streamlined model, you have a happy customer.

Permite Replacement Pistons help repairmen everywhere make happy customers because they are correct in design and finish and have the qualities needed to restore new car performance. They either duplicate exactly the original equipment pistons, or embody definite improvements which long experience has proved necessary for better replacement piston operation.

It pays to install Permite Pistons, Valves and other Permite Replacement Parts. Their dependability means better service to your customers, better business for you. You can get quick service from your Permite Jobber.

ALUMINUM INDUSTRIES, Inc., Cincinnati 25, Ohio



## Teen Agers . . . . . Continued from Page 63

cedure. They go back to their class with fresher determination to study and a resolve in many cases to become trained mechanics when it comes time to pick their livelihood.

Said Mr. Peters in extending his invitation to the school authorities, "We'll be glad to have any group from any of the schools

under the supervision of a teacher. We'll schedule a tour at any time consistent with the work schedule of our shop. We believe that the high school age is the right time to teach safety on the road, and we feel that we can show them thousands of reasons why they should drive carefully."

Another 'teen-age project which

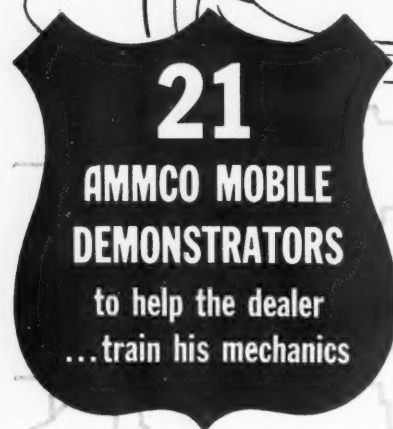
the company sponsors annually and which has won it considerable prestige is the country-wide art exhibit participated in by high school students. With the contestants and their parents, teachers, local dignitaries and many of the general public pouring into the dealers' showroom to see the art display, a splendid opportunity has been afforded to build up prestige and benefit through the resultant publicity.

For several months preceding the holding of the exhibit which starts on Washington's Birthday, the affair is talked up in the high schools with the art teachers encouraging their students to enter as part of the class project. Full credit is given for the work submitted.

At the first exhibit, held in 1951, there were from 800 to 1,000 registrants who filled out entry blanks and had them forwarded to the dealer. Of this number there was some eliminations due to entrants who did not finish their work, were screened out by their teacher, or for other reasons, so that the entry list was cut down to 218, from eight high schools and affiliated junior high schools. (This eligibility range has since been extended to all high school and junior high school students in Bergen County.)

The big night is at the opening of the exhibit on Washington's Birthday when the dealer's show-

(Continued on page 78)



Play Safe with  
AMMCO

Ammco operates 21  
completely equipped  
mobile units staffed by  
factory trained technicians.

It's easy to operate  
Ammco equipment when  
your men know how.



**AMMCO TOOLS, INC.**

2102 COMMONWEALTH AVENUE, NORTH CHICAGO, ILLINOIS





meet

*Junior!*

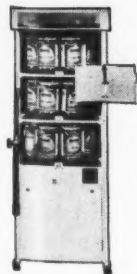
## newest member of ARCO'S Famous Color Machine Family

**He's a chip off the old block, too.** Looks like his old man . . . works as fast and as economically, supplying all colors for all cars from only 22 basic mixing colors (lacquer or enamel), the eight most popular colors in gallons, the rest in quarts. Just set Junior on any empty painted drum and you're in business.

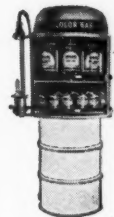
**All-electric, automatic agitation** of all colors at the same time is yours with Color Bar Junior, as are all of the other time-saving features of the Color Bar. In fact, there's only one big difference between him and his famous daddy . . .

**Junior costs about half as much...** the greatest color matching-color mixing bargain since the first "horseless carriage" rolled down Main Street.

Like to meet Junior? Ask your Arco jobber for full information, or fill in this coupon . . . you'll be surprised when you learn how much Color Bar Junior can do, and how little he costs.



**THE COLOR BAR®**  
All-time Champion.  
Last word in fast,  
accurate all-electric  
color matching.



**THE COLOR  
BAR® JR.**  
Perfect for any size  
shop. Electrically  
agitated.



**THE  
COLOR CADDY**  
Ideal, low-cost color  
machine. Electric  
agitation.



Paints, Lacquers,  
Varnishes, Enamels,  
Protective Coatings

**TESTED FIRST TO MAKE IT LAST!**

THE ARCO COMPANY • 7301 BESSEMER AVE. • CLEVELAND 27, OHIO

THE ARCO COMPANY  
7301 Bessemer Avenue  
Cleveland 27, Ohio

I would like complete details on the  
Color Bar Jr.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

room is packed with students, their parents and friends, all anxious to learn the judges' decision. All must present invitations for admission. At that time prizes are handed out and there are some speeches by leaders in the community, auto industry, as well as congratulations from a United States Treasury official since gov-

ernment bonds are presented.

For 10 days thereafter the paintings are hung in the showroom and the public invited to come in and look them over without charge. At the close the entries are returned to the students through the schools.

All expenses for the project are borne by the dealer. For the first

exhibit this came to about \$2,000 which included awards, newspaper advertising announcing the affair, photographs, other advertising expenses, etc.

The results were so satisfactory, however, that Mr. Peters decided to hold the project annually. He pointed out five outstanding benefits which have resulted through these 'teen-agers' projects.

(1) It has developed good will from service customers on the present level such as parents who were contracted through the 'teen-agers.

(2) It insured future recognition from the 'teen-agers themselves who will be the patrons of tomorrow.

(3) It brought favorable recognition to the dealer from the general community level standpoint, particularly those local leaders who shape public opinion.

(4) It resulted in considerable recognition on the trade level from the factory executives and even competing local dealers. This was shown when Mr. Peters received a scroll for his work from the Hackensack Car Dealers Association.

(5) It brought much favorable press publicity which ran for several months from November through March in the local papers and was extended as well to others in the New York metropolitan area, and in art publications.

## NADA Lauds Chrysler For Price Reductions

The National Automobile Dealers Association, through President Robert S. Armacost, expressed its commendation to the Chrysler Corporation on the announcement of price reductions on cars and trucks manufactured by Chrysler.

The text of Mr. Armacost's wire was as follows:

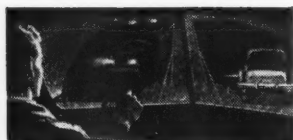
"Actions speak louder than words. The announcement yesterday by Chrysler Corporation is indeed commendable, especially since it parallels the expressed thinking of your dealer councils. Chrysler product dealers will now approach with enthusiasm the period ahead and I am sure will demonstrate to you the wisdom of the action."



## AMERICAN BOSCH DUAL ELECTRIC WINDSHIELD WIPER

Independent of engine vacuum and regardless of speed, load, or acceleration on up-grades, this powerful, direct electric drive Dual Wiper *always* functions at constant, synchronized speed. No stalling, no stuttering of the wiper blades to cloud good, safe vision of the road ahead, even in the roughest weather.

Ask about Dual Model WWB, a complete packaged unit, designed for swift, easy installation under cowl. Model WWA, for vehicles requiring single Wipers, also available for header mounting. These simplified sales-active conversion units are of rugged, heavy-duty American Bosch construction which guarantees years of trouble-free service. Already in wide use as original truck equipment, these Wipers are today's positive answer to good vision in bad weather and a real opportunity for you to sell greater safety at a profit. Write now for application data on the many passenger cars and trucks you can service. American Bosch Corporation, Springfield 7, Mass.



DIRECT ELECTRIC DRIVE, SYNCHRONIZED, TWO SPEED OPERATION OF DUAL ARMS. TANDEM OR OPPOSED WIPING MOTION. AUTOMATIC BLADE PARKING. THERMAL CUTOUT PROTECTS WIPER MOTOR AGAINST OVERLOAD.



TWIN ARCS OF SAFETY VISION FOR CARS, TRUCKS, TRACTORS. ARMS UP TO 12" LONG. BLADES UP TO 14", 30 INCH/LBS. TORQUE PER BLADE. WIPING ANGLE UP TO 118°. FOR 6 OR 12 VOLT SYSTEMS.

# AMERICAN BOSCH







# I WAS **ROBBED!**

**AND IT WAS AN INSIDE JOB.**

"I knew I was going to have to shell out when my car started to make like a machinegun. The engine would cut out for a few seconds; then, catch hold with a backfire that woke the neighborhood. Not too often, understand, so I put up with it till I blew the muffler.

"That job cost me plenty! So did the job of checking the ignition system for loose connections. But I was back for *another* new muffler within a week!

"The next time my car acted up, I pulled into the first garage I could find. They had a bright boy for a mechanic who pulled the battery cable and sawed it in half to show me an inside job was costing me plenty. The cable was so far gone with internal corrosion it's a wonder I could start the car let alone keep it running.

"Take a tip from a guy who learned the hard way: have your battery cable checked today."



This Crescent display prompts your customers to ask about battery cables—reminds you to check the battery cable on every car you service.

With the Crescent Battery Cable Show Case assortment, you can service 95% of all cars on the road! And this eye-catching display and electric flasher sign actually costs you nothing. Ask your jobber today about the complete Crescent Wiry Joe battery cable merchandising program. And ask him for a copy of the helpful booklet "How To Sell More Battery Cables."

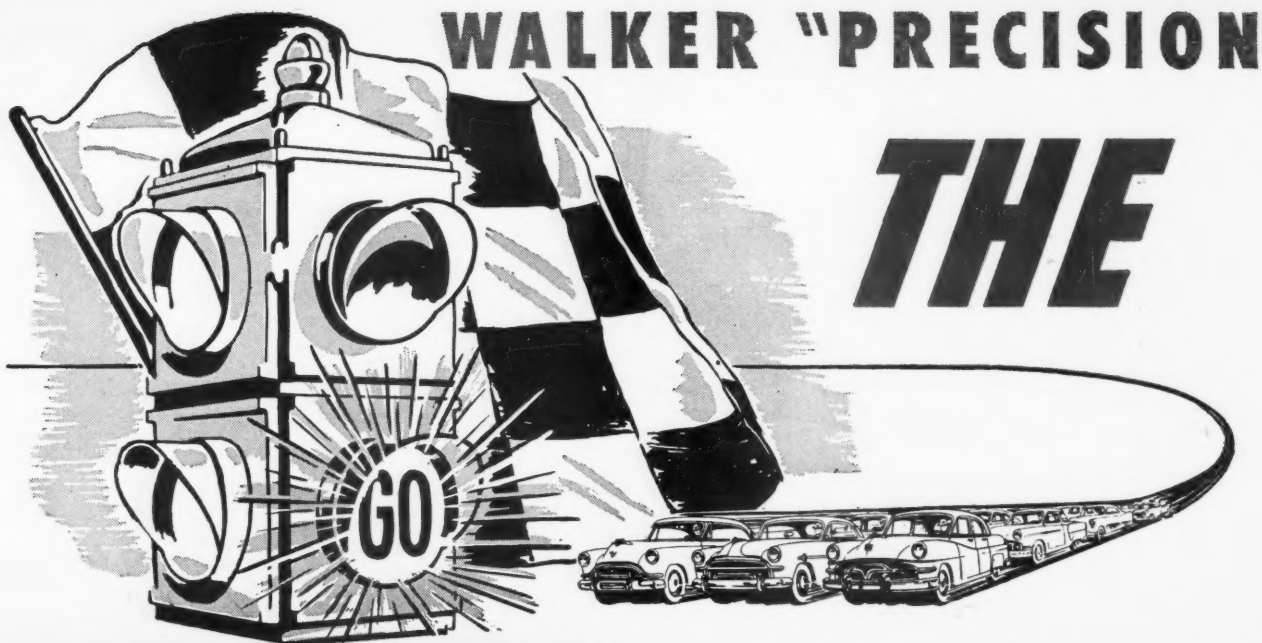
*Check the wire and cable  
on every job!*

THE CRESCENT COMPANY, INC., PAWTUCKET, RHODE ISLAND

*Wiry Joe*



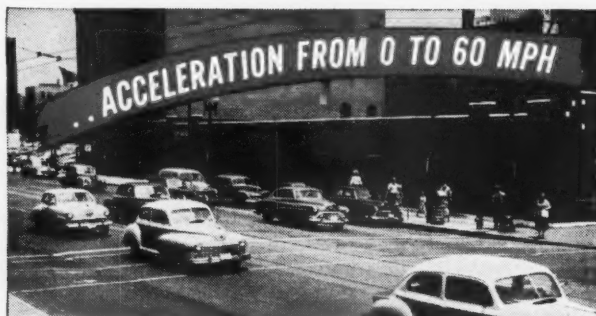
**CRESCENT**



# WALKER "PRECISION THE

## \*GO-FACTOR

means the ability of the car to get into quick motion



**PRECISION TUNED** for the new generation of engines and automobiles—now and to come.

## Walker "Precision Tuned" Silencers are a Basic Part of the Modern Engine's "Breathing System" a Vital Influence in the Improved "GO-FACTOR"

In this new generation of engines, the most direct and practical route to the *improved* GO-FACTOR lies through *increased volumetric efficiency* . . . or the improved ability of the engine to breathe . . . to effectively utilize a greater charge or volume of air-fuel mixture and transform it into increased horsepower.

As a basic part of the engine's breathing system, proper exhaust system design exerts a vital influence on car performance . . . on its final horsepower rating . . . on its GO-FACTOR. No longer can yesterday's mufflers meet even the minimum requirements of these new standards.

And once again Walker sets the pace with "Precision Tuning" . . . a new generation of Walker Silencers to meet the new, complex problems of a new generation of engines.

Walker "Precision Tuned" Silencers are designed as an integral part of engine design . . . to quiet the heavier power notes of these new, more powerful engines without power loss . . . to specifically solve the new and difficult problems of shell noise . . . "transmission boom" . . . "tail pipe bark" . . . and still preserve the full measure of "traffic flash" and reserve power designed into every modern automobile.

Yes—Walker "Precision Tuned" Silencers bring out the "GO-FACTOR"!

WALKER MANUFACTURING COMPANY OF WIS. • RACINE, WISCONSIN

Exhaust Silencers . . . Oil Filters . . . Jacks

NOW MORE THAN EVER  
**WALKER**

# TUNING" BRINGS OUT

# GO FACTOR\*

## Here's how WALKER "PRECISION TUNING" solves THE PROBLEM OF SHELL AND TAIL PIPE NOISE

The intense explosion pulse of the new, high compression, increased horsepower engines creates difficult-to-control high frequency vibrations which may cause tinny, irritating shell and pipe noise.

### WALKER "PRECISION TUNING"

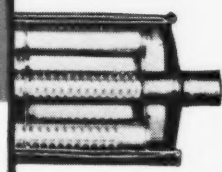
**prevents** obstruction to the free flow of pressure pulses which may reflect into the exhaust pipe causing "pipe ping."

**eliminates** objectionable "head ring" by the use of specially contoured or laminated head constructions.

**eliminates** objectionable shell noise by using: ✓ double wrapped shells ✓ asbestos "sandwich" shells ✓ costly asbestos wrapped and steel covered shells

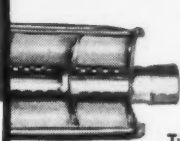
### VARIOUS WALKER SHELL CONSTRUCTIONS USED TO REDUCE SHELL NOISE

View of  
Shell Section



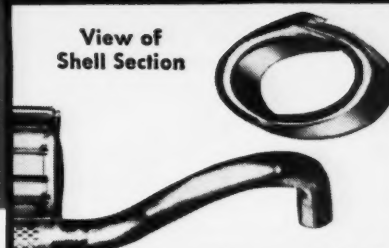
Typical Double  
Wrapped Shell

View of  
Shell Section



Typical Double Wrapped  
Shell with Asbestos Insert

View of  
Shell Section



Typical Double Wrapped Shells  
with Asbestos and Steel Cover

● There are 54 Double Wrapped Shell Numbers in the Walker Silencer Line

● There are 19 Asbestos Treated Shell Numbers in the Walker Silencer Line

● Asbestos Treated Shells are also required in certain cases to reduce floor board heat



# SILENCERS

MAKE THE DIFFERENCE!



INDIVIDUALLY TUNED for the millions of fine cars, trucks and buses still in active service.



characteristics due to lower center of gravity. The advantage of the offset engine arrangement is that it shifts onto the left side approximately 150 lb of weight, depending on the amount of the engine offset. This means more even tire wear distribution and better traction during the 800 left hand turns required in the 500 mile grind.

Engines are the topic of much talk. Meyer & Drake's present model 4-cylinder Offenhauser 270 cu in. engine, in popular use at Indianapolis for so many years, probably will power 25 or 26 of the 33 qualifying cars. Some experts feel that the 4-cylinder models have gone about as far as they can go in developing horse-

power without the hazard of greater mechanical failures.

Twelve new "Offies" were built this year. Though basically 1952 models, several engine changes were made this year. The crankshaft is now machined from a drop-forging, the forging forming the crankthrows to required shape. Greater reliability is expected because of improved grain-flow characteristics. Previously, all cranks were machined from round billets.

Another improvement is the water pump drive, now through an involute spline coupling in place of the tongue and slot on previous engines.

Engine designers are saying something new in engines is needed to spark Indianapolis racing. V-8's will again be tried this year, proponents of which claim increased dependability and higher horsepower over the 4-cylinder engines, made possible by the



**THIS NEW**, more complete Johnson Engine Bearing Catalog helps you select the correct bearings for any job. The Johnson Automotive Bearing Manual gives you valuable information on bearings, their care and replacement . . . also causes of bearing failure. Both books will be sent **FREE** if requested on your business letterhead. Write today.

JOHNSON BRONZE COMPANY  
455 South Mill Street, New Castle, Pa.



#### If the Shoe Fits . . .

Wife: "So you finally got me a skunk coat! Who could imagine that such a wonderful fur could come from such an evil, foul-smelling beast?"

Husband: "I don't expect gratitude, Dear, but I must insist upon respect."

(The Cotton Picker)

shorter stroke and lighter reciprocating parts such as connecting rods and wrist pins. Basically, for a given displacement, the V-8 has a higher revolution potential than the 4-cylinder.

Lou Meyer, vice-president, Meyer & Drake Engineering Corp., Los Angeles, takes this attitude toward the development, "While our company is also considering plans for a V-8, we will, like all the engine designers and builders, be carefully watching the performance of the V-8's this year. We're glad to see the modified stock car engines entered, notably the Chryslers. They're certainly creating a lot of interest, which is good for racing. Also, we welcome competition. It will be interesting to see whether such engines can successfully compete with engines solely designed for racing."

Chrysler Corporation is known  
(Continued on page 84)

# yours free!

*...the BIG BOOK of money making tools!*

**NEW, 104-PAGE**



**ASK YOUR SNAP-ON MAN  
—OR SEND FOR IT TODAY!**

You'll want this latest edition of the most complete—most informative and helpful—tool catalog ever published! Tells you what you want to know about America's top line of automotive service tools... *the choice of better mechanics* everywhere! Includes many new tools developed by Snap-on to help you handle tough jobs faster, easier, more profitably. Ask your Snap-on Man for a copy on his next call —or write direct to Snap-on.

A post card gets it!

**SNAP-ON TOOLS CORPORATION**

8036-E 28th Avenue, Kenosha, Wisconsin

\*Snap-on is the trademark of Snap-on Tools Corporation



## Indianapolis . . . . . Continued from Page 82

to be spending a large amount of money reworking several of its stock engines to conform to Indianapolis specifications. Practically no word has been released from the company, but it is known that three engines will be V-8's with a bore of 3 13/16 in. and stroke of 2 31/32 in. Piston displacement is 272 cu in. Murreli

Belanger, Crown Point, Indiana, has entered one car and Roger G. Wolcott of Indianapolis the other two.

These cars will certainly attract much attention because of the excellent performance of a Chrysler engine during special tests at the Speedway last summer. The Chrysler engine used at that time had

the stock displacement of 331 cu in., larger by 57 cu in. than the maximum of 274 cu in. permitted under Speedway rules. Chrysler engineers apparently solved that problem by reducing the stroke of the crankshaft sufficiently to comply with existing rules. It is understood the company made a new crankshaft forging die to do so. While it is believed Chrysler is shooting at 7,000 rpm, experts wonder whether this can be maintained for the four hour grind. It seems quite likely the expected engine rpm will be attained during some of the faster laps although the average for the entire race will be somewhat lower.

Much talked about, too, is a J. C. Agajanian entry powered by a reworked Studebaker V-8 engine (MOTOR AGE, May 1952). It looks as though Chuck Stevenson, AAA champion, will be the pilot. W. C. Utzman, who supervised all the engine work, reports dynamometer tests of 370 hp at 7100 rpm using methyl alcohol. All tests were run at 12.8:1 compression ratio which will be maintained for the race. The designers of the engine feel the maximum horsepower output could be in the neighborhood of 400.

Utzman's V-8 engine now has an 18 lb cast magnesium oil pan for better oil cooling and increased block rigidity. Special main and rod bearings were made for the engine. A special scavenger pump for the crankcase was built using three stock Studebaker oil pump gears in one unit. It will be mounted on the front of the crankcase and driven off the front end of the crankshaft through spiral gears.

Kurtis Kraft cars will once more dominate the Indianapolis oval. Builder Frank Kurtis whose chassis designs have contributed much to Indianapolis racing, built eight new cars for the race, his Series 500-B. They are based essentially on the Keck Fuel Injection Engineering Special in which Vukovich made such a fine showing last year. Chief modifications are the use of transverse torsion bars on the rear as well as front, placement of torsion bars forward of the axle in front, widening of the

**LOOK INSIDE!**

SEE WHY **AIRTEX** WATER PUMPS ARE *Better 6 Ways!*

- VACUUM TESTED**  
for Perfect Pumping Action!
- HAIRLINE ACCURACY**  
in Machining Guarantees Proper Water Flow for Cooling Engine and Automatic Transmission!
- BODY CASTINGS**  
Double - Checked Against Porosity!
- PRECISION MADE BEARINGS**  
Lubricated for Life!
- SYNTHETIC RUBBER SEALS**  
Unharmful by Oil or Anti-Freeze!
- LEAKPROOF GASKETS**  
Furnished for Proper Installation!

**AIRTEX PRODUCTS INC.**  
FAIRFIELD, ILLINOIS  
World's Largest Independent Fuel Pump Manufacturer

UNCONDITIONALLY GUARANTEED  
for Long-Lasting, Trouble-Free Performance!

AIRTEX AUTOMOTIVE DIVISION



body 6 in., and better streamlining.

Seven of these new cars will mount an Offenhauser 270 cu in. engine on the left side. Three engines will be placed 8 in. off center line, inclined 36 deg from vertical, and four will be 6 in. off center line but vertical. This offset arrangement puts the oil tank and transmission on the left side of the cockpit and the driver below the drive line. The design also lowers the center of gravity and puts the weight on the left side. Some designers believe that this arrangement will increase right hand tire life and also the speed potential in the turns. The eighth car will mount in the center one of the Chrysler V-8's in a vertical position.

Fibreglas parts will make their debut at Indianapolis in radiator shell and tail sections on five of the new Kurtis cars. The primary purposes are weight and labor savings, according to Frank Kurtis. A Fibreglas coating is used on the fuel tanks for its vibration absorbing qualities, and to reduce the hazard of tank leakage.

Kurtis Kraft cars this year will include 75 gal fuel tanks, and a giant size fuel tank filler cap (approximately 2 sq in.) for quick filling. This may help prevent fuel spilling onto a hot exhaust pipe during pit stops. The caps are mounted on the left side for easier servicing from the pits.

The streamlining of the Series 500-B cars is improved. Usual chassis parts such as torsion bars, shock absorbers and steering linkage are no longer exposed but hidden beneath the racer's skin, lessening high speed air disturbance.

William B. Ansted, Jr., Indianapolis, is again entering the car

(Continued on page 86)

*Depends on How You Look at it...*

A perfect pessimist was the farmer who had some chickens. When someone remarked that his chicks were quite sturdy, he replied, "Yes, but the trouble is, the old hen hatched out six, and all of them died on me but five."

(The Cavalier)

# Make Money

## THE EASY WAY!

**MILLIONS OF PEOPLE WILL SEE THIS ADVERTISEMENT**



**EASY**  
TO KEEP YOUR CAR  
BRIGHT AND  
SHINING WITH

★ Because it cleans and polishes in the same operation, it is easy to keep your car clean and shining with Bowes Auto Polish and Cleaner.

In one quick operation you remove dirt and dulling road film and restore original beauty... without back-breaking fatigue.

Keep your car clean and shining the easy way, with Bowes Auto Polish and Cleaner... gives you more shine with less work and will make you proud of your car.

**BOWES SHINE CLOTH**  
Chemically treated, this unusually efficient shine cloth absorbs dust, leaves no oily film to catch more dust... and... makes your polish and cleaning job last over a long period of time. Save time and labor with this unusually effective shine cloth.

**BOWES "SEAL FAST" CORPORATION**  
INDIANAPOLIS 7, INDIANA

## "CASH IN"

**ON OUR NATIONAL ADVERTISING!**

◀ The advertisement at left appears in FARM JOURNAL, AMERICAN LEGION MAGAZINE, MECHANIX ILLUSTRATED, SATURDAY EVENING POST, POPULAR MECHANICS and other publications. Millions of people will get this message... and many will come to YOU for this time and labor saving product... IF... you identify yourself as a source of supply. Pick up this extra profit!

## WRITE TODAY!

There is a BOWES Distributor in your immediate neighborhood. There is no obligation, whatever, if you drop us a card or letter and ask that a "profit making" BOWES Distributor call on you and explain the profit possibilities of the BOWES line. Bear in mind... you can make money, the easy way, if you display our nationally advertised BOWES AUTO POLISH.



**BOWES "SEAL FAST" CORPORATION**  
INDIANAPOLIS 7, INDIANA

## Indianapolis . . . . . Continued from Page 85

which featured an off-center drive-shaft (MOTOR AGE, May 1952). Renamed the "Cop-Sil-Loy Brake Special," the car's designer and chief mechanic, Roscoe Ford, made two major changes this year. The engine is now reset from a straight up position to a 20 deg angle from the vertical, thus shifting the crankshaft to the left of

center  $4\frac{1}{2}$  in. This change was made necessary by the installation of a new transfer gear box having two gears instead of three as in last year's entry. The pair of gears replaces the conventional quick change design in the rear end which is used by most cars at the track. The use of the transfer gear arrangement on the back of the

transmission reduces unsprung weight on the rear end by about 35 lb. It also allows a lower overall car height by permitting the driver to sit alongside the drive-shaft. The direction in which the driveshaft normally turns was reversed this year, with the result that the reverse torque thus created tends to give better traction on the left rear wheel.

The two Novi cars, powerful threats but unlucky contenders for years, are once more ready to go. Duke Nalon and Chet Miller will again drive them. Jean Marcenac, chief mechanic, feels he has the breakdown jinx licked with a correction of last year's trouble. The supercharger driveshafts which broke on both cars were strengthened this year, by modifying the design, and by use of different material and heat treatment.

The Ferraris, much heralded invaders of last year's race, will be represented by a Howard Keck entry, Johnnie Mauro and Stanley Olszewski. The Ferrari management, it is understood, needs more time to modify its own cars. Work on engine changes is reported, with the Italians said to be attempting to raise the horsepower another 50 or 60 hp. In all probability they will turn up in 1954.

Rear drive cars again predominate. Except for the Novis, and possibly a few other entrants, all will be rear drives. Each year, as the speeds increase on the turns, the front drive design seems to encounter greater front tire wear problems. This is due no doubt to the increased weight on the front end inherent in this design.

A majority of cars will be equipped with the Hilborn fuel injection system, which has become increasingly popular because of the simplicity of design and minimum necessity for adjustment.

Excluding the Novis, there are few supercharged entries.

New, longer wearing Firestone tires will appear on all cars this year with the possible exception of one or two foreign entries. Designed primarily for improved lasting qualities, the new tires, according to driver George Con-

(Continued on page 88)



**milled,  
curved-tooth files**



EASILY CURVED . . . UP OR DOWN

**HELLER BROTHERS COMPANY**  
America's Oldest File Manufacturer  
NEWCOMERTOWN, OHIO





# CARTER FUEL PUMPS

**Now Chosen as Original Equipment by 11 Leading Manufacturers**

CARTER'S advanced design line of Fuel Pumps is the talk of the automotive industry. The performance records these pumps are setting daily are directing the trend to CARTER.

Stock up now—contact your nearby distributor or jobber—

And remember too—Carter Fuel Pumps are being presold to millions of your customers and prospects with colorful hard-hitting ads in the *Saturday Evening Post*, *Life*, *Look*, *Country Gentleman* and *Popular Science*.



**CARTER CARBURETOR CORPORATION • St. Louis 7, Missouri**  
Division of American Car and Foundry Company



nor, can be expected to give about 1½ mph increased speed. The tire was given a long series of tests at the Indianapolis track from July through December with Connor doing all the test driving and using four different Indianapolis racers. Tests were run at an average speed of 135 mph.

The new tire with its 5/8 in.

wider area of road contact provides more traction area. The overall area of contact is about 18 sq in., depending on the weight of the car. The rear rim is 7 in. wide compared with the 5.5 in. rim used previously. The front rim will be either 5.5 in. or 6.0 in. instead of the former 4.5 in. rim. Inflation pressures will remain the same,

approximately 40 lb. Pure nitrogen for tire inflation will again be used.

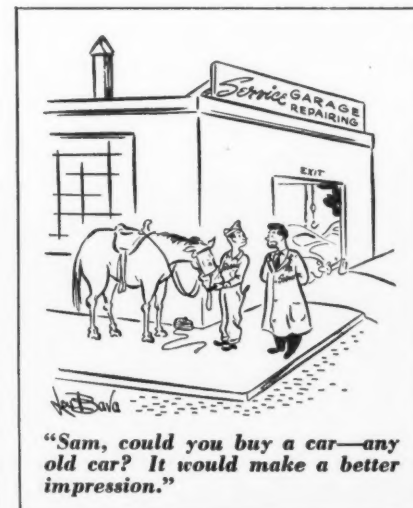
Track talk! A large group of car owners are instituting this year a movement aimed at prohibiting the use of nitro-menthane at the track. Used as a fuel additive, the chemical produces increased horsepower. But the owners' group feels it is still too early to allow its regular use, as a lack of experience with it has resulted in damage to engines.

## Auto Industry Optimistic, Chrysler Official Says

The automobile industry is optimistic about the business outlook in 1953, A. vanderZee, vice-president of Chrysler Corporation, said in an address before the Kansas City Chamber of Commerce.

He expressed the opinion that the industry would increase its production of automobiles and trucks to a level of five-and-a-half to six million this year as against 4,800,000 units it was permitted to build by government regulation in 1952. This increased production would be subject, he said, to the availability of critical materials.

"On the comfort, convenience, and safety side alone, we have seen the advent of power steering, power braking, push-button windows, automotive air conditioning, tinted safety glass, and other features," he said. "These developments recognize that the car owner wants more in his vehicle than a means of transportation, vital though the latter may be to his way of living."



**WHEREVER LEAKPROOF, PRESSURE-TIGHT CONNECTIONS ARE REQUIRED . . .**

**AYE! IT'S THRIFTY, TOO!**

**TiteSeal**  
A SOLDER SEAL TRADE MARK PRODUCT

**GASKET & JOINT SEALING COMPOUND**

Hoot mon . . . it's the choice of engineers, mechanics and maintenance men throughout the Automotive and Aviation industries. Famous for its sure, safe sealing performance on hundreds of gasketing applications . . .

**TITE-SEAL** is impervious to gasoline, oil, water, ammonia, glycerine, steam, gas vapor, exhaust fumes and most hard-to-hold liquids. Withstands extreme temperatures; will not shrink, crack or crumble. **TITE-SEAL** is available in a complete selection of scientifically blended compounds for dependable, all-purpose sealing efficiency.

**NUMBER 1**  
A FAST DRYING HARD SETTING LEAK-PROOF SEAL FOR THREADS AND JOINTS

**NUMBER 2**  
THE FLEXIBLE NON-HARDENING LEAK-PROOF SEAL for MACHINED JOINTS and GASKET APPLICATIONS

**NUMBER 3 BLEND**  
LIQUID AVIATION TYPE NON-HARDENING GASKET & JOINT SEALING COMPOUND

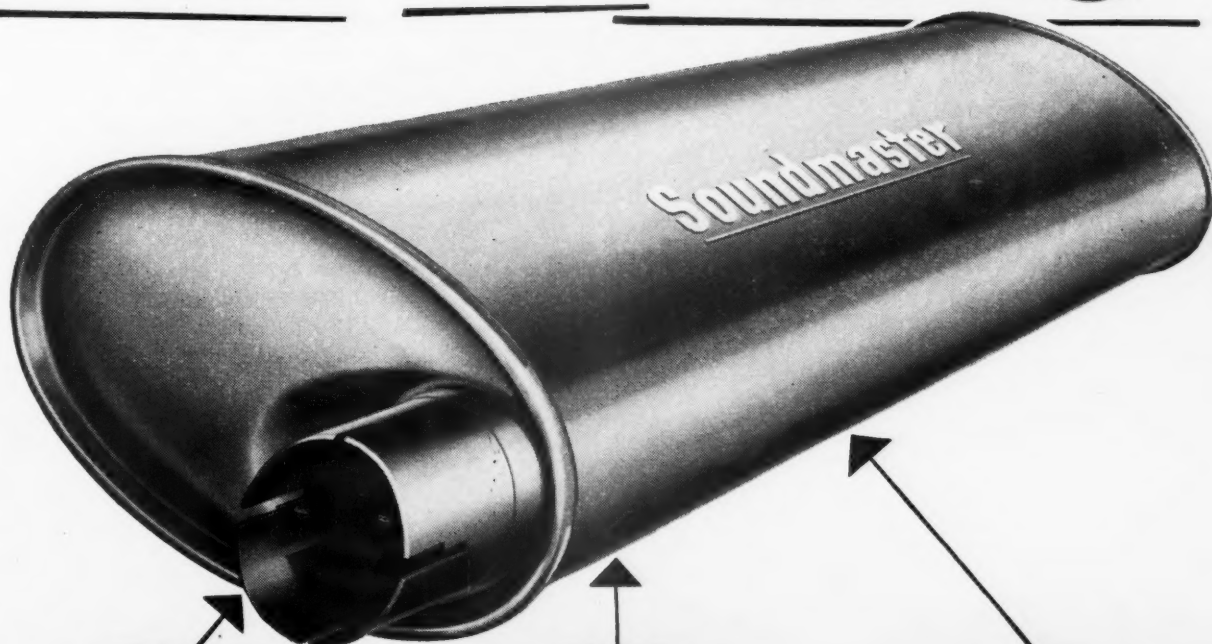
**RADIATOR SPECIALTY CO.**  
CHARLOTTE, NORTH CAROLINA

**In Canada:**  
**RADIATOR SPECIALTY CO., LTD.,**  
Toronto

2015

SELL THE MUFFLER THAT FITS THE CAR

# ALL 3 WAYS



**1** MECHANICAL FIT  
for fast, easy  
installations

**2** ACOUSTICAL FIT  
for full-range  
noise control

**3** HORSEPOWER FIT  
for all the power  
the car can deliver

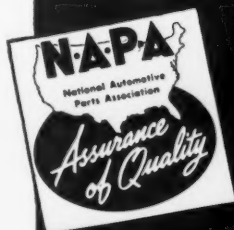
No compromise in size or shape . . . each Soundmaster Muffler is engineered for a specific make and model. That's why Soundmaster FIT means Fast Installation Time—more profit for you on every job!

No "in-and-out" noise control here! Soundmaster eliminates objectionable noise on each car over the entire range of speeds and loads. Soundmaster engineers really *know noise*—and how to control it!

The sacrifice of acceptable back pressure limits is one way to whip noise problems — BUT! Our engineers know better ways. You'll never catch a Soundmaster stealing power by stretching the back pressure limits!

Now, and from now on, install Soundmaster—the muffler that fits *all three ways*. Quickly available from NAPA Jobbers . . . correctly engineered for each make and model!

DE KOVEN MANUFACTURING COMPANY • RACINE, WISCONSIN



# Soundmaster

MUFFLERS, PIPES AND ACCESSORIES

"Well, that takes care of him for a while," Larry breathed with a sigh of relief. And to Pop, "Well, if there's a new gasket, we might assume that the rings and pistons were checked at least."

"We just don't assume in any diagnosis in my shop," Pop growled. "Get the compression gage and the vacuum gage and we'll find out.

I'll be back later and listen to your diagnosis." With that he headed for the office to greet a visitor.

It was a pretty irate visitor too, and Martha Peters was not easy to cope with at any time. "Mr. O'Neill," she exclaimed, pointing her parasol at Pop's nose for emphasis, "don't you dare run up any more bills on me. Jefferson brought

that new car of his in here didn't he? He told you to work on it, didn't he? I want you to understand that I simply will not pay for any work on that awful old car. It's, it's . . ."

"Now wait a minute, Mrs. Peters. Don't scold me until I can explain—and please point that dangerous thing the other way." In spite of himself Pop was amused. It was not his first run-in with Marthy.

"I told Jefferson to get rid of that smoldering haystack this very morning. I told him to sell it or trade it or give it to someone. But he is not to bring it home again. Why it gets on fire. It's dangerous that's what it is!"

This was one of the times when Pop wished he were a rancher down in Texas instead of an independent shop owner fixing cars and consoling wrathful wives. "Just have a little patience, Mrs. Peters. We'll stop that smoke, and you'll have a nice car there."

"I'm afraid to ride in it. Jefferson should never have got rid of the Erskine. The Erskine never got on fire. Why, Mr. O'Neill, that Packard will blow up—and where will I be?"

Pop suppressed a grin. "Now that is just smoke from the exhaust. Let us spend a day on that car, and I'll guarantee there won't be any more hay burning. In fact the boys have probably found the trouble by now."

"I wanted Jefferson to keep the Erskine," Marthy complained. "But he thought we ought to be traveling in finer style. Finer style my eye!

(Continued on page 94)



**Perfectly**

**Molded Parts**

On every tune-up and engine repair job, look for cracked or burned molded parts. Always replace with precision molded ECHLIN Parts to insure top performance. ECHLIN Extras in Plastic molding give you Extra Quality at no extra cost.

**ECHLIN** Ignition

A PRODUCT OF ECHLIN

CONTACTS  
COILS • CONDENSERS  
& OTHER AUTOMOTIVE  
ELECTRICAL PARTS

ECHLIN MANUFACTURING COMPANY

DEPT. MA, 220 EAST ST., NEW HAVEN 5, CONN.

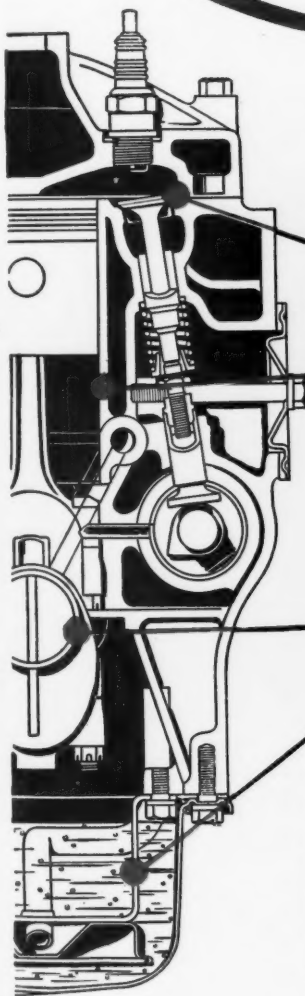




**HERE'S WHY  
MOTOR RYTHM  
IS YOUR STRONG BID FOR  
STEADY, FULL-PROFIT SALES!**



**"All-Around" Performance adds extra sales chances**



**SELL IT TO CLEAN  
OUT CARBON from  
pistons, rings, valves.**

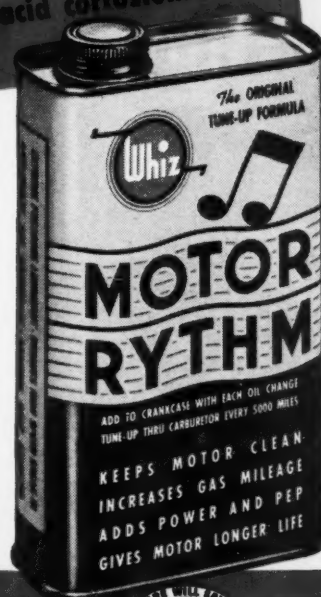
**SELL IT TO FREE  
STICKY VALVES and stop  
hydraulic valve "clatter."**

**SELL IT TO STOP  
SLUDGING and disperse  
carbon particles.**

**SELL IT TO  
CHECK WEAR and reduce  
acid corrosion.**

MOTOR RYTHM performs not just one or two, but *all* the functions of a tune-up oil—and *does them all well!* MOTOR RYTHM's "all-around" formula creates extra sales opportunities and steady volume for you! You have more satisfied customers—more repeat business. Order now for extra profits!

**Ask your Hollingshead Salesman about the  
MOTOR RYTHM "Full Profit" Story!**



**R. M. Hollingshead Corporation**

LEADER IN MAINTENANCE CHEMICALS

Camden 2, N. J. • Warehouses: Chicago, Dallas, San Francisco

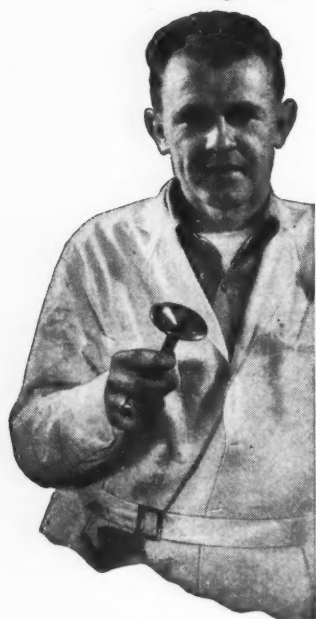


**New Black & Decker Deluxe**

**Super-Service VALVE REFACTOR**

**Obsoletes All Other Equipment . . . \$360.<sup>00</sup> (complete)**

## For Higher Profit Valve Reconditioning



*You can't beat  
Black & Decker Equipment*

**Here's why:** Black & Decker valve reconditioning equipment obsoletes all other! Designed for years of dependable service, correctly engineered, and precision-built to get jobs done faster, and most important, *right the first time!* Check the features of the new, improved B&D Deluxe Super-Service Valve Refacer and the Vibro-Centric\* Grinder. Then, see them demonstrated at your nearby B&D Distributor . . . you'll see first-hand why you can't help getting a better job every time with Black & Decker tools! For more information, write for free catalog to: THE BLACK & DECKER MFG. Co., 620 Pennsylvania Ave., Towson 4, Maryland.

**MORE FLEXIBLE CAPACITY** is built for years ahead! Takes up to 4" valve heads:  $\frac{3}{32}$ " to  $\frac{1}{16}$ " valve stems; 0° to 90° valve angles; traverse grinds at any angle.

**NEW END GRINDING ATTACHMENT** is extremely quick-accurate-efficient; gives you *everything* you need for grinding valve stems, rocker arms and tappets in one complete package!

**SMOOTH, ABUNDANT POWER** is developed by two B&D universal motors, independently driving collet and wheel spindles.

**QUICK ACTING COLLET CLAMP** with fast, accurate thread, holds valve in perfect alignment for grinding factory-accurate angle.

**SUPER-SPEED FEED SCREWS** for fast, accurate work have bearing adjustment with automatic end play take-up.

**FINEST HYPOID GEARING** drives the workhead spindle for smoothest grinding finish.

**NEW COOLANT SYSTEM** features wet grinding at both valve and attachment wheels, one-valve control, improved reservoir.

**SIMPLIFIED CONTROLS** make every operator an expert.



**Black & Decker**

**Vibro-Centric\***

**VALVE SEAT GRINDER**

**\$53.00** (complete)

**F**AST, accurate, foolproof! Matches the speed and accuracy of the Valve Refacer to turn out perfectly matched valve assemblies. Driving spindle incorporates a positive vibrating action which lifts the grinding wheel from the stone once each revolution. This prevents loading the stone, speeds up grinding and reduces stone wear. All grinding is concentric, cutting the entire circumference of the seat, and insuring correct alignment. No complicated adjustment or "rigging" required! You recondition the average cast iron seat in a few seconds!

B&D Vibro-Centric\* Grinders will give years of service in high-speed grinding. Powerful B&D-built universal motors maintain high grinding speed even with larger, heavier stones often required in tractor, truck and Diesel work! Available in complete Kits offering assortments of equipment for all the most popular cars or for special groups of cars, trucks and tractors.

\*Trade Mark Reg. U.S. Pat. Off.

LEADING DISTRIBUTORS EVERYWHERE SELL



**Black & Decker**  
PORTABLE ELECTRIC TOOLS



Why, we'll be flying in higher style if that machine ever blows up." Marthy was weakening, but she could not relent without giving good account of herself.

"Well, since you've already started on it, go ahead. But I warn you just as I warned Jefferson. If that machine ever catches fire, I won't pay you a cent."

Pop only sighed. An explanation was useless anyway. And Mrs. Peters was content at this point to turn on her heels and slam the door as she swished through. Through the crack in the shop door Pop could see the figure of Jefferson Peters himself straining to catch every word. But when he headed for the Packard, Jeff was nowhere

to be seen.

"What's Jeff hanging around for?" Tommy exclaimed, when the old man came up.

"I haven't seen a thing, son," Pop smiled. "Nor heard a thing. But while the white flag's up, let's get the smoke out of this Packard or we'll all be run through with a green parasol."

Larry was showing his chagrin in every movement. In fact he was stuck. "It's got me," he said. "Compression is good. Pulls 21 inches of vacuum. It can't be worn rings or scored cylinders."

"I checked the breather too," said Tommy. "I sort of figured that we were getting pressure build-up in the crankcase and maybe leakage at the rear main."

"How about the vacuum booster pump diaphragm?" Pop queried.

"No. Haven't checked that yet. But I'll do that now," Larry said.

"What has the vacuum booster pump got to do with oil loss?" broke in Tommy. "I've never heard of that one."

"Well, you have now. When the diaphragm is porous, oil from the crankcase can be sucked up into the booster pump chamber and brought into the intake manifold."

Larry was making a quick check while Pop was explaining. "I'm afraid it is OK," he said. "And that leaves us right back where we started."

"That leaves us right where we want to be," Pop corrected. "We know now that there is something wrong with the ring seal. And there's only one thing left to do. Tear her down."

"It's a waste of time," complained Tommy. "No use checking rings when compression checked out. I'm sure Pop is wrong this time."

"Beats me. But I'm curious to see her insides anyway," Larry said. "You drain the oil, Tommy, while I pull the head."

It did not take long for two husky mechanics to open the engine. The boys had gone over just about everything you could think of in establishing blame for the oil loss. "Two bits it's the rings," Larry said. "Probably didn't leave enough end clearance and scored the cylinder walls."

(Continued on page 96)



Just Two Simple Connections to Make...  
Hooks Up to Any Car in Less than 5 Minutes!

the amazing Kent-Moore  
**"LECTROTEST"**  
ELECTRIC GAS-PER-MILE GAUGE

What do you do when a customer complains of "poor gasoline mileage"? Take time to check the fuel pump, carburetor . . . everything that might cause excessive fuel consumption? And if you find that nothing's wrong, what then? You can't just tell a customer that his driving's at fault, and expect him to believe it . . . even though poor driving habits are a basic cause of reduced mileage. He wants proof . . . and that's where the amazing Kent-Moore LECTROTEST comes in. Because this remarkable, precision instrument offers a positive, low-cost means of solving mileage complaints. With LECTROTEST you can give customers a "personalized economy run" . . . a convincing, two-way demonstration that shows 'em by eye, tells 'em by ear that the engine is not at fault.

And that's not all! . . . LECTROTEST is also being used by alert car salesmen as a potent aid in making extra sales. It proves new car mileage claims . . . eliminates the average prospect's doubt concerning used car performance! Send for complete information today!

NOW AVAILABLE THROUGH SELECTED  
KENT-MOORE DISTRIBUTORS  
COAST-TO-COAST



**KENT-MOORE**  
ORGANIZATION, INC.

5-105 General Motors Bldg.  
Detroit 2, Mich.

**KENT-MOORE ORGANIZATION, INC.**

5-105 General Motors Bldg., Detroit 2, Mich.

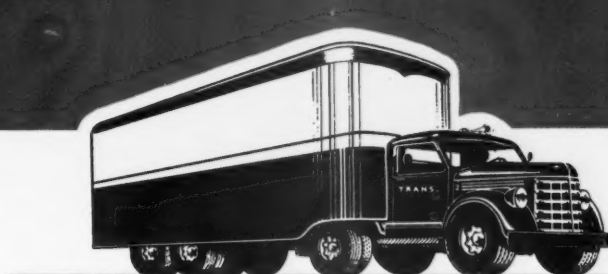
Gentlemen: Please rush me complete information on your LECTROTEST Gas-Per-Mile Gauge.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

# "Very good results" from Clevite\* 77



**H**ERE is additional proof of the reliability and low service cost of Monmouth\* Engine Bearings.

A major Midwest freight line operating heavy vehicles over long hauls is noted for its on-time schedules. Clevite 77's are used in connecting rod and main bearings in its vehicles. They say results are "very good", averaging 185,000 miles per set of bearings.

Delays due to bearing failure have been reduced about 75% since using Clevite 77 Bearings.

These bearings are made by the world's largest producer of original equipment bearings. You can depend on their original equipment design, quality and precision for passenger cars, trucks and buses. Distributed nationwide by NAPA Jobbers.

*Your  
NAPA Jobber  
is a Good Man  
to Know!*



\*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

## Monmouth

ENGINE BEARINGS  
CLUTCH PLATES AND PARTS  
CHASSIS PARTS



Made by The Cleveland Graphite Bronze Co. — supplied through Clevite Service, Inc.  
Units of Clevite Corporation, Cleveland, Ohio.

**NOW**

for Limited Time Only

**PERMACEL®**

7K and P8 UNIVERSAL

**MASKERS**

**1/2 PRICE**

with the purchase of  
2 bulk cases of PERMACEL Masking Tape  
and 6 rolls of PERMACEL Masking Paper



**PERMACEL P8 Universal**  
Regular price ~~\$29.95~~  
Sale price to you  
**NOW \$14.98**



**PERMACEL 7K Masker**  
Regular price ~~\$37.50~~  
Sale price to you  
**NOW \$18.75**

**Call your jobber  
NOW**

**NOTE...Masker Deal orders  
shipped direct, invoiced by  
your jobber.**

INDUSTRIAL TAPE CORPORATION • NEW BRUNSWICK, N. J.

**Pop O'Neill . . . .**

Continued from Page 94

"I'll bet it is the valve guides," Tommy insisted. "You see when new rings are installed, the valve guides should always be checked and replaced if necessary because the increased compression is apt to suck the oil right past the guides into the combustion chamber."

"Aw, dry up," chided the older man. "I heard Pop telling you all about that a minute ago. And I learned that before your were born."

"You two birds can argue better than any two monkeys I ever saw," Pop growled. "If you could manipulate a wrench handle as fast as you can rattle your respective jaws, you'd have this thing down and back together again by this time."

They pulled the pistons one by one while Pop examined the rings, the ring lands, the skirts very carefully. Larry felt the cylinder walls. No scoring. "We'll check for taper, Tommy. Hand me the mike and dial gage."

*A chip on the shoulder is the heaviest load a man can carry.—Unknown.*

Pop watched them check the cylinders. Then he followed carefully while a check was made on the pistons for size. "Guess we'd better have a look at the valve guides," Tommy repeated.

"Don't use that word, Tommy," Pop cautioned. "We don't guess around here. Somebody else guessed. That's why this job is back in the shop. Now let's take another look at these pistons." He removed a ring and laid a straightedge along the piston skirt. His frown turned into a big broad smile, while Larry's smile turned into a puzzled frown.

"What's it all about, Pop?" he queried.

"Happens once in a lifetime, but it sure happened this time. See this land area? It's flush with the piston skirt. Should be recessed. There's your trouble."

It was Tommy's turn to look puzzled. "Just tell me why in three  
(Continued on page 98)



With a Stock  
This Small

You Can Fit Them **ALL**  
with Trico's "Two Little Squirts"



With Trico's new Windshield Washer Installation Kits, you can fit any one of 48 different car models from a small assortment of kits.

17 million television screens advertise the "Two Little Squirts"; millions of users tell friends about them. Now with these new "quick on-the-car" kits, you can cash in on this demand. Your jobber will tailor-make a stock to fit your requirements.



*Windshield Washers*

Trico Products Corporation, Buffalo 3, N. Y.

*As Advertised  
Coast to Coast  
on Television*



short sentences," he said. "I'll have the lecture later, but why the clearance there?"

"Necessary so the rings can seat along the cylinder wall, that's all. You see if the lands were flush with the skirt, the pistons would rub and the rings couldn't do their job of scraping oil down off the walls."

"I wonder how this could have

happened," Larry mused.

"Growth, son, growth. These aluminum pistons have a tendency to grow with repeated expansion. And the last shop didn't check them. Hand me the manual, Tommy. Now here's what you should have for this 3½-in. diameter piston: Top land, .023 in.; Second land, .016 in.; Third land, 0.16 in."

"I'll turn them down on the lathe," Larry was saying. While you get a new set of rings ready, Tommy. "We'll have this job out in jig time now."

"And that's what happened, Jeff," Pop was attempting to explain when the old man came for his car. "I don't think the old buggy will be eyeing every filling station wistfully now. We've quenched her thirst alright."

"Well, I'm certainly much obliged to you, Pop. You think the smoke is gone out of her, do you?" "Right."

"Well, then tell me how to take the smoke out of Marthy. You know she is madder'n a singed pigeon about this garage bill. And right now she isn't speaking to me let alone writing a check."

Pop remembered the parasol episode and laughed. "Tell you what, Jeff. You tell Marthy the job covers all fire hazards. (We'll write in a little fire protection.) And if she sees or even smells smoke now, the bill is canceled. Why, I'll bet she'll like that Packard better'n a Erskine when she finds you aren't burning up anymore."

"Well, I'll sure try it. But maybe you'd better write me a little accident insurance just in case I meet with disaster while trying to provide the fire insurance. Anyway, Pop, barring unforeseen emergencies and wholesale vehicle conflagration, your check will be in the mail in the morning."

### AAA Asks States to Give 'Break' to Young Drivers

The American Automobile Association called on state motor vehicle and traffic commissioners, as well as the vast majority of insurance carriers writing automobile insurance, to give young drivers with proven behind-the-wheel ability an opportunity to buy automobile insurance without paying a penalty because of their age.

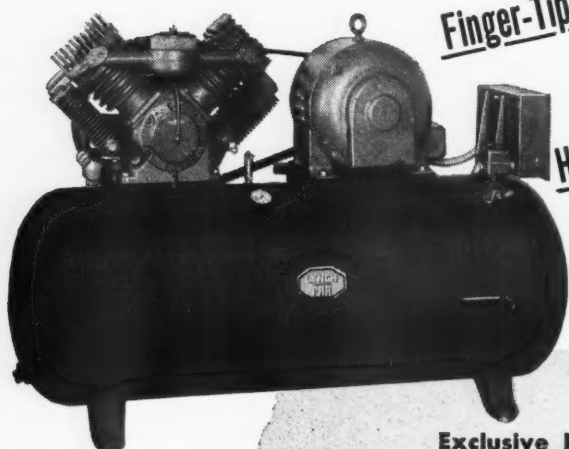
So that all states will have a sound basis for conducting surveys on the trained versus untrained young driver, Ralph Thomas, AAA president, urged that they follow the practice of Pennsylvania, which issues licenses in special blocks of numbers to the driver training course graduates.

## Three Forward Steps

Exclusive  
in the NEW

# PAR

7½ H.P. and 10 H.P. UNIT



Finger-Tip Drain Valve Control

Horizontal Check Valve

Increment Starting

### Exclusive PLUS Values

These new unique features—and others—make the PAR 7½ H.P. and 10 H.P. Model the best investment in air compressors. This tank-mounted, two-stage unit is built to operate smoothly for years, and to serve faithfully even under the most rugged operating conditions. Write for complete details.

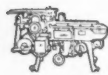
REDESIGNED HORIZONTAL CHECK VALVE provides positive insurance against leaks caused by dirt collecting around the seat. This exclusive PAR feature means smooth, trouble-free operation—reduced maintenance costs.

NEW POSITIVE TANK DRAIN VALVE, also exclusive with PAR, is operated with a finger-tip touch. A completely new-type screen and rubber seat keeps dirt out.

INCREMENT STARTING, standard on 10 H. P. model, cuts initial drag when the motor is started.



PAR AIR COMPRESSORS



ICE CREAM SANDWICH WRAPPING MACHINES



WRAP-O-MATIC CANDY & COOKIE WRAPPING MACHINES



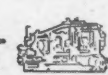
LYNCH CORPORATION  
PAR COMPRESSOR DIVISION  
TOLEDO, OHIO Branches—NEW YORK  
CHICAGO • SAN FRANCISCO • LOS ANGELES  
ATLANTA • DALLAS • TORONTO



MORPAC PAPER PACKAGING MACHINES




MORPAC BUTTER & OIL PACKAGING MACHINES



GLASS FORMING MACHINES

EXPORT DEPT. • 1902 Jefferson Avenue, Toledo 2, Ohio • Cables: BRADFOSA



# Get 50% More Profit ON YOUR UNDERCOATING JOBS

## LION *Nokorode* UNDER-CAR SEALER AND SILENCER

### 1. 50% More Jobs Per Drum

Nokorode is *concentrated*—no excess solvent. You spray Nokorode to  $\frac{1}{16}$ " thickness—and it dries to almost  $\frac{1}{16}$ ". It's made *entirely* by Lion under U. S. Patent 2393774, assuring *controlled* uniformity, *controlled* quality. Nokorode goes 50% farther, yet costs no more than ordinary undercoatings. That means 50% more profit for you.

### 2. Easier Application . . . Lower Labor Cost

Nokorode is *uniform* for smooth application—no troublesome "blobs". . . flows freely, permitting steady pressure in the gun. There's no lost time due to lost pressure.

Nokorode is *stable*, made of highly compatible materials—won't separate in storage, won't clog guns or hoses. You avoid unnecessary clean-up jobs—you save man-hours and money.

Made and guaranteed by

LION OIL  COMPANY

EL DORADO

ARKANSAS

**FREE!** Details on how to increase  
undercoating profit.

LION OIL COMPANY, El Dorado, Arkansas

Please send information on higher profits  
with LION NOKORODE.

Name

Address

City

State





"When a customer wants a set of new spark plugs, chances are he wants the same kind that originally came with the car . . . that's why I handle Auto-Lite Spark Plugs. They're original factory equipment on hundreds of cars and trucks in this neighborhood . . . and I want that business!"

F. K. FULLMER  
3175 South State  
Salt Lake City, Utah

*Dealers agree...*

# "AUTO-LITE SPARK PLUGS

"What I like best about handling Auto-Lite Spark Plugs is the big job Auto-Lite is doing to bring me customers for everything I sell. I like the way every ad and radio and TV announcement directs car owners to Auto-Lite dealers."

LEO MATTHIESEN  
629 Elm Street  
San Antonio, Texas





"It's a lot easier selling an original equipment item — that's why we handle Auto-Lite Spark Plugs. Besides, all the Auto-Lite equipped cars, trucks and tractors in our neighborhood make up a tremendous potential market. It's just good business to sell Auto-Lite."

J. W. HUETER — HARRY NOTE  
1125 Pine Street  
Seattle 1, Washington

*offer the best deal!"*

"My hat's off to Auto-Lite and its engineering department for giving us the Auto-Lite Resistor Spark Plug. It sure gives any Auto-Lite Spark Plug dealer an outstanding advantage over his competition."

GEORGE V. COTE  
2919 Joy Road  
Detroit 6, Michigan



## Don't Spare the Rods . Continued from Page 43

parts can be in bad need of reconditioning without visual defects. Here is what can go wrong with a connecting rod in the order of frequency in which it happens:

1. The big end bore becomes out-of-round.
2. The big end bore becomes enlarged.
3. The shank becomes twisted.

4. The shank becomes bent.
5. The pin bushing becomes worn or poorly fitted.

6. The rod cap becomes cocked.  
To understand how such inaccuracies can develop requires a review of the work that is done by the connecting rod itself. The rod, as you know, converts the energy set up in the explosion and expansion

of the gases in the cylinder into rotation. It does this by virtue of the eye end being connected to the piston, which produces a direct downward thrust, and the big end to the crankpin.

The load that passes through the rod is sizable. After all, when this load is multiplied by the number of cylinders, it equals the total power of the engine. In a 4 x 5 engine, the loads in effect try to shorten the rod. This force exerted on the rods can amount to as much as 6 or 7 tons. Such loadings can be applied as often as one thousand times a minute with the rod placed in tension during some other part of the cycle.

Add all of this to the general flailing of the big end of the connecting rod, plus engine operation between zero degrees, or below, at cold starting, to as much as 300 deg F actual oil temperature in desert country, with perhaps constant temperature changes in between, and you have the typical connecting rod in modern truck usage.

Bore distortion is caused by the combination of load variations and the relieving of internal stresses in the rod due to constant operational temperature changes. This can affect the bolts, possibly to a lesser degree.

Anyway, we know that the rod does go out-of-round through use—not all rods, but enough to make it advisable to check them.

Similarly, the big end bore of a connecting rod becomes enlarged. Some of the growth could also be attributed to either the surface finish of the rod becoming worn through the loading or actual minute movement of the previous bearings.

Enlarged bores cause any subsequent rod bearings assembled in them to show indications of looseness. The bearing will break if the condition is aggravated.

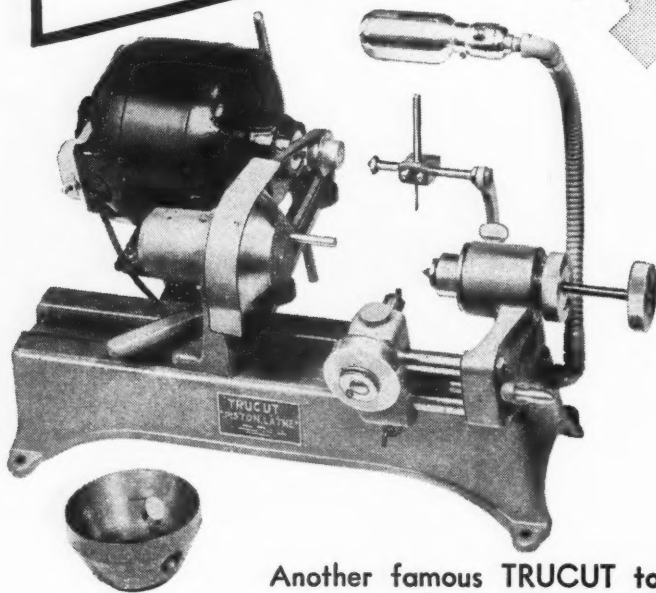
The connecting rod shank becomes bent or twisted in some engines, possibly because of previous misalignments or again because of earlier internal rod blade stresses.

As is already known, the piston pin bushing fit with the piston pin  
(Continued on page 104)

# Soon Pays for Itself!

**CLEANS, REGROOVES,  
or DRILLS CENTERS,  
Six Pistons in 6 Minutes!**

## TRUCUT PISTON LATHE



Another famous TRUCUT tool, that soon *pays for itself* in extra profits. The TRUCUT PISTON LATHE regrooves pistons and cleans grooves faster than any other known method. It also drills centers in centerless pistons, accurately, and fast. The TRUCUT PISTON LATHE is a *power-driven* precision machine, especially designed for rapid and accurate re-ring jobs. It will pay you to write us for free details today!

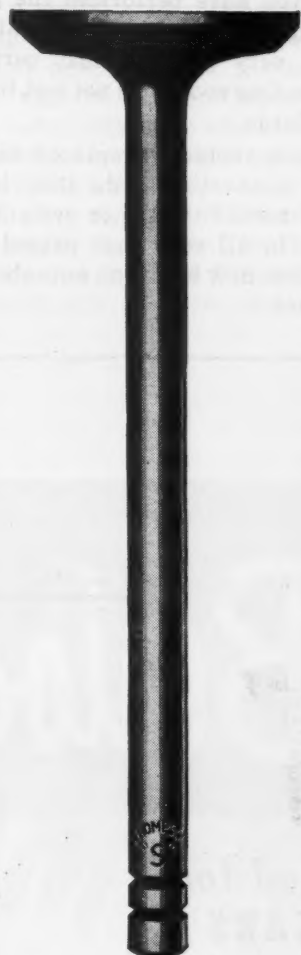
**FRANK N. WOOD CO.**

... SINCE 1933  
**TRUCUT**

344 W. Main Street, Waukesha, Wis.  
1330 W. Olympic Blvd., Los Angeles 15, Calif.



# Your **BIG THREE** in Engine Valves



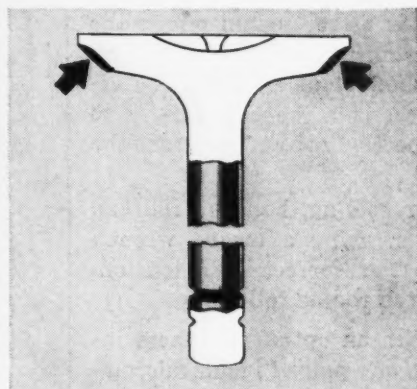
**THOMPSON "S" EXHAUST VALVE**—the world's best-known exhaust valve for cars, trucks, buses and tractors. Made from a variety of fine heat- and wear-resisting valve alloys, because different valve alloys are required by different engines. Thompson "S" exhaust valves are your best bet for regular installation.



**THOMPSON SODIUM-COOLED EXHAUST VALVE**—this super exhaust valve for heavy-duty automotive engines is used by 11 manufacturers. An adaptation of Thompson sodium-cooled aircraft engine valves. The sodium in the hollow stem rapidly drains the heat from the valve head into the cooling system. When original-equipment sodium-cooled valves in any engine need replacement after long service, see your TP Jobber for THOMPSON sodium-cooled valves.

**YOUR THOMPSON JOBBER** is your **ONE-STOP-STORE** for every type valve you need.

He stocks the **BIG THREE** in engine valves, all precision-manufactured by Thompson Products—for 50 years the original equipment valve leaders. The valves you get from your Thompson Jobber are the result of the same engineering, metallurgy and manufacturing that produce the world's finest aircraft engine valves.



**THOMPSON AEROTYPE EXHAUST VALVE**—for heavy-duty service. Aircraft valve steel—armored on the valve face with one of the hardest known alloys, developed by Thompson metallurgists. Used by 15 leading manufacturers as original equipment. Recommended for replacement in trucks, buses and tractors where resistance to wear, burning and battering is a prime consideration.

HAVE  
YOU  
SEEN



TP's new color sound movie?  
If not, ask your Thompson Jobber.

See your **Thompson**  
**Products Jobber**

**SERVICE DIVISION**  
2209 Ashland Rd., Cleveland 3, Ohio

## Don't Spare the Rods . Continued from Page 102

is very important. On many occasions, the replacement of the bushing itself is mandatory. This can be due to bushing wear or in a few instances to a breakdown caused by a combination of excessive heat in the piston and the loading.

The last and rarest connecting rod malady is generally classed as a misfit of the cap. However, similar difficulties could have been caused by: filing of the cap parting faces, a wrong cap, cocking of the cap at assembly because of too much bolt hole clearance, dirt between the parting faces of cap its rod and degrease the rod.

### Give Your Rods a Chance

When you dismantle the engine, you can make a preliminary check of the fit of the piston pin in the rod bushing. If it appears OK, remove the pistons from the rod assemblies, bolt the cap loosely to its respective rod and degrease the rod.

After cooling, bolt the rod cap in place, using a torque wrench to get the correct bolt tension. Check the rod as follows:

1. With an out-of-roundness indicator, or a pair of inside micrometers, check each rod big end bore for roundness. Check each side and if a variation of more than .002 in. is found, lay that rod to one side, as being unfit.

2. With the same inside micrometers or an internal gage, measure the rod bore. Check about one-quarter of an inch inward from the rod chamfer, in three places radially, and then the same way on the other side. Record these readings. If the average of all readings is larger than the correct maximum bore size, lay this rod to one side.

3. Check the used piston pin for signs of wear. Replace as necessary and check fit of new pin into the existing bushing that is in the eye end of the rod. Replace bushing as necessary and fit piston pin to it.

The greatest men are those whose defeat has not defeated them.

Check pin-fitted connecting rod in an alignment fixture for parallel and twist between piston pin and big end. If twist or out-of-parallel is more than .001 in 6 in. place this rod to one side.

4. Assemble new or reconditioned pistons to the rods that have passed the inspection up to this time. After assembly, recheck

these for alignment in a suitable inspection fixture.

If you have performed the preceding inspection steps accurately, it is very possible that certain connecting rods have not met these standards.

Those should be replaced either with connecting rods that have been reconditioned or with new ones. In all rods that passed inspection, new bolts and nuts should be used.



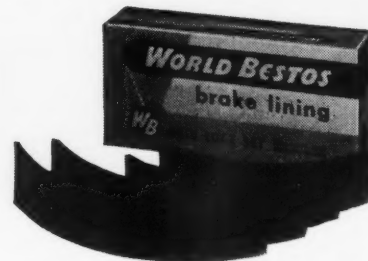
## Brake Lining Engineered for HIGH HORSEPOWER CARS

New cars with higher horsepower and automatic transmissions require more stopping power . . . often call for different brake frictions and sizes on front and rear axles. World Bestos linings (both Dry Mix and Wireback) are now engineered to give that extra stopping power! WB uses seven different frictions to meet passenger car requirements alone . . . and all WB passenger car lining will be packaged in single axle, 4-piece sets to simplify stocking and handling.



### "PRESCRIBED FRICTION" SETS

For passenger cars, commercials, taxis, trucks. A Dry Mix lining engineered for each specified vehicle. Also undrilled "PPF" Sets for bonding.



### "GRID LOCK" MOLDED SETS

Wireback molded linings for all popular passenger cars, commercials and trucks. Also undrilled "PGL" Sets for bonding.

Also complete line of Brake Blocks for all types of Trucks, Trailers, Buses and Coaches.



thing he had been told to do but no matter how much he "goosed the gas" with the choke and accelerator, the motor refused to respond. The small hill ahead brought the expensive car to a dead halt.

Mr. Big exploded. "Get out and see what's the matter," he shouted to Manuel but the Filipino had learned only to drive and polish

cars—he knew nothing about fixing them.

Manuel got out of the car. He raised the hood and looked for some loose connection. He tried to see if something was broken. He checked the gas tank and remembered he had filled it just before starting. He tried the starter again but it was a very dead motor.

Again Mr. Big exploded. "Manuel, stop looking at that motor. Go down the road to that service station and bring a mechanic back here. And hurry it up." And when Mr. Big said "Hurry Up" it was "Chop Chop" to most everyone in The Islands.

Manuel took off down the road and it was only a few minutes until he was explaining his troubles to ex-Staff Sergeant Charley Tamashiro. Sarge Charley smiled and told the anxious Filipino to hop in his service car. Together they rode off and in a few minutes they pulled up along side the stalled black beauty.

Mr. Big exploded for the third time. "Hey you, Charley-San, can you get this car started?" His tone and words were the same he had used to address his yard boys some forty years before. But it was not to a poor Japanese immigrant he was speaking this time. It was to a battle-hardened ex-GI who had plenty of savvy and a great dislike for being treated as anything but the American he was.

But Charley Tamashiro was also a diplomat so he replied with the pidgin English that would have been used those forty years back. "So sorry, please, you car breakee down. Me try all same feexee."

Charley raised the hood and took a look at the motor and ignition then smiled a little smile all for

(Continued on page 106)

→ gives you



**MORE  
STOPPING  
POWER**  
*for Today's Cars!*

See your Distributor or write direct to:

**WORLD BESTOS**

NEW CASTLE, INDIANA



"If this does turn out to be a dream, I've got to be more careful what I eat before going to bed!"



himself. He told Manuel to get in the car and step on the starter. The Filipino did that but there was no response from the motor. Charley called a halt, took out a screw driver, made one turn and closed the hood. Then he told the driver to try again. This time the big motor responded at once and the rhythm of its cylinders made motor

music.

Mr. Big smiled. He turned to the ex-doughboy and said: "Well, that's fine Charley-San. How much do I owe you?"

Again the pidgin English fitted the part and Charley-San replied: "Oh, so sorry please, but make charge five dollah two-bits."

Mr. Big looked just a little puz-

zled. But he had to be on his way. "Five dollars and two-bits, huh! Well, Charley-San, what's the two-bits for?"

The reply came back as Charley bent low "Oh, so sorry please. Two-bits for feex car."

Mr. Big was all puzzle. He shot out, "If the two-bits is for fixing the car, then what in Heaven's name is the *five dollars* for?"

This time Charley did not bow low but stood at attention as he replied, "Oh, so *very* sorry, please. Two-bits is for feex car. Five dollah is for *know how* feex car."

## Studebaker Head Issues Report on '52 Earnings

Sales of the Studebaker Corporation in 1952 exceeded the half-billion dollar mark for the second successive year and for the second time in the firm's history, it was announced by Harold S. Vance, president, in the company's annual report.

Vance reported that production of passenger cars and trucks in 1952 amounted to 231,837 units as against 285,888 during the previous year. The decrease, he pointed out, amounted to about 19 per cent and was due to restrictions upon materials and production. It represented approximately the same down-turn, percentagewise, as that recorded for the year by the automotive industry as a whole.

## Less 'Assorted Ailments' With Motorists, AAA Says

American motorists had 13 per cent less trouble last year than in 1951 from assorted ailments as tire, battery and ignition breakdowns, getting stuck in mud, running out of gas, and locking themselves out of their cars, the American Automobile Association reported.

Based on reports from some 18,700 garages under contract to supply emergency road service to its members, the AAA estimated that 42,398,000 calls for such assistance were made during 1952.

For the second straight year, flat tires or blowouts had a slight edge on battery failure as the leading cause of breakdown. In third place, but trailing far below the leaders, was ignition trouble.

in EVERY part of the country...  
in EVERY size service shop...

IN CALIFORNIA\*  
**\$3,257.00**  
increase in one month

IN KANSAS\*  
**\$9,559.00**  
increase in 3 months

IN PENNSYLVANIA\*  
**\$38,041.00**  
increase in 6 months

SUN  
makes it easier  
for you

...to greatly increase  
parts and labor sales

The use of SUN Scientific Automotive Testing Equipment can result in a remarkable increase in needed labor and parts sales as indicated in these examples selected from among thousands of dealers and service shops all over the country. Just as important is the customer confidence gained through the elimination of costly comebacks and chronic complaints. Your SUN Equipment gives the service salesman an extra selling tool that helps him to show the car owner exactly where, why and how needed repairs should be made. The SUN Line is complete—enabling any dealer or service shop to have exactly the right units to fit his shop needs. Newly engineered 6-12 volt equipment is now available on your present equipment, through the SUN Modernization Program, can be quickly converted to serve vehicles of both voltages. Talk to your nearest SUN Representative or write TODAY directly to SUN.

send for the New SUN Scientific Automotive Testing Equipment CATALOG  
\*names on request

**SUN** ELECTRIC CORPORATION  
63 N. Avondale Ave. Chicago 31, Illinois 138

**HAVE YOU COMPARED  
CORK GASKETS  
LATELY?**

In the package, of course, most makes of gaskets look alike. But in the shop and on the road are where important differences show up.

There's where Armstrong-Victor gasket users are realizing the benefits of A-V's exclusive Electronic cork curing process. It preserves the natural liveliness of cork, giving gaskets greater strength and sealing power. It doesn't over-cure or under-cure cork like steam processes can do.

In your shop, modern-made Armstrong-Victor gaskets help you seal a job tight and right on the first try. They fit better because there's no shrinkage. They handle easier without breakage. And on the road, they protect your work against leaker complaints; help you keep customers happy.

**NOW BETTER THAN EVER . . .**

**NO INCREASE IN COST**

Now you get even more for your money in Armstrong-Victor gaskets at the price you would pay for ordinary quality. Only Armstrong-Victor's leadership in the cork gasket field makes this possible. Your Victor Jobber carries factory-fresh stocks—in packaged sets or individual pieces—for every make and model you service.

Better look into Armstrong-Victor Cork Gaskets if you aren't using them. Victor Mfg. & Gasket Co., P. O. Box 1333, Chicago 90, Ill.

**VIC CORKY SAYS:**

You'll find this 2-notch trade-mark on genuine Armstrong-Victor Replacement Gaskets only.



**A V**

**CORK COMPOSITION GASKETS • CORK SHEETS**



# RECOMMENDED FOR.

## "OPERATION MS" IS START-STOP DRIVING

most severe of all operating conditions, according to the new service classifications of the American Petroleum Institute. Here's the official A. P. I. statement on oil contamination from start-stop driving: "Start and stop service promotes condensation in engine cylinders and crankcases of water from fuel combustion and also dilution of the oil with unburned fuel; it can promote corrosive wear of cylinders, pistons, and rings, also oil ring plugging, varnish deposits and low temperature emulsion type sludge."

**WALKER OIL FILTERS MEET  
THE EXTRA REQUIREMENTS  
OF "OPERATION MS"—  
REMOVING BOTH SOLID  
CONTAMINANTS AND  
HARMFUL WATER THAT  
ENDANGER  
9 OUT OF 10 ENGINES**

THE ENGINE PUTS IN	WALKER TAKES OUT
ROAD DUST From Engine Breathing	✓
CARBON SOOT From Engine Combustion	✓
LEAD SALTS	✓
METAL PARTICLES From Engine Wear	✓
MOISTURE From Engine "Blow-By"	✓



# "..OPERATION MS" MS"

(MOST SEVERE)

The American Petroleum Institute classifies everyday start-stop, low-speed traffic idling driving as Service MS, the most severe of all operating conditions. This is the driving pattern of 9 out of 10 of your customers.

Under "Operation MS," the engine seldom really warms up—maximum combustion blow-by creates soots, carbon, lead compounds and the most objectionable of all contaminants, *water in the oil*.

Water in the oil is the chief cause of sludge, most important source of engine operating difficulties. Water in the oil is the source of corrosive crankcase acids, a major cause of engine wear.

Walker Oil Filters are recommended for "Operation MS" (Most Severe) because they remove

solid contaminants from the oil . . . *and water, too*. Walker patented *Laminar* construction takes out dust, dirt and abrasives through famous 3-way filtration. And the exclusive *Laminar* filtering material selectively removes water from the oil . . . keeps the moisture content below the critical "sludge danger zone" . . . minimizes acid wear by absorbing the acids contained in the water removed from the oil.

Walker Oil Filters are designed to protect oil and engine under the most severe of all operating conditions.

No other oil filter more completely meets the extra requirements of "Operation MS." No other oil filter more completely meets the needs of 9 out of every 10 of your customers.



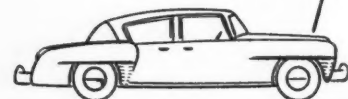
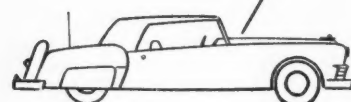
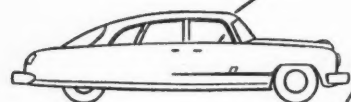
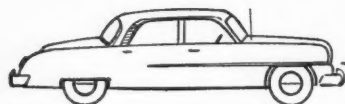
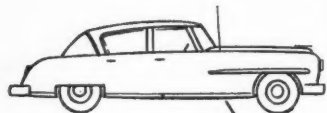
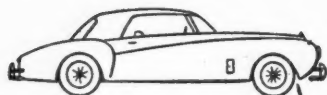
**WALKER**  
**OIL FILTERS**

WITH PATENTED *Laminar* CONSTRUCTION

WALKER MANUFACTURING CO. OF WISCONSIN • RACINE, WIS.  
Oil Filters • Exhaust Silencers • Jacks

GET IT FROM  
YOUR JOBBER

# DON'T ACCEPT LESS...



# KESTER'S BEST

**KESTER SOLDER COMPANY**  
4242 WRIGHTWOOD AVENUE, CHICAGO 39, ILLINOIS  
NEWARK 5, NEW JERSEY • BRANTFORD, CANADA

**KESTER  
SOLDER**

## Dealers' Sons . . . . .

Continued from Page 55

seven years ago, 35 classes have received a total of 687 diplomas. The 687 young men came from 47 states, the District of Columbia, Alaska, Hawaii, and 13 foreign countries. Canada has sent fifty; Australia and Mexico five each; India, Sweden, and South Africa three each. Cuba has had two, while one apiece from the British Isles, Chile, Finland, New Zealand, Puerto Rico, the Canary Islands, Argentina, and France.

Dealers' sons constitute the bulk of enrollment, but the conferences are not limited to them, nor even to dealers' relatives. Frequently a dealer will enroll in the conference himself. Often he will send another executive or a department head from his organization, or a young man in line for an executive position in the dealership.

Particularly effective in the training of these young businessmen is the conference type of study. Conference techniques were established as the basic pattern of the Dealers' Sons Conference program. They stimulate active discussion of practical problems in management.

Group sessions of the Dealers' Sons Conferences are conducted, for the most part, at the Chrysler Corporation Conference of Business Management, a brick and stone structure that looks like a university campus building, on Detroit's East Side. For convenience, most of the conferees are lodged at nearby hotels during their six-week stay in the city.

Chrysler Corporation and divisional sales executives take part regularly in the conference program, together with representatives of the Parts Division and Service Departments.

The basic material of the program—How to Manage an Automobile Dealership—is broken down to (1) operation of new car sales department, (2) used car department, and (3) parts and service departments. Other typical subjects are financial management, economic guides, inventory control, merchandising and advertising, employee training, human relations, and product study.

for  
53

# Better See Motorola Car Radios

...if you want to be the leader in town!

1. FINEST NAME AT THE LOWEST PRICE
2. MOST COMPLETE LINE
3. MERCHANDISING PROMOTION HELPS
4. FOUR-WAY CHOICE OF INSTALLATIONS



and **NOW!**  
you can offer the most  
popular car radio in new

## 12 VOLT VERSION

With Motorola you can't lose a sale! There is a Motorola for almost every car, every model with standard volt circuits or 12 volt circuits. Not only can you offer the finest name in car radios at the lowest price in the industry—but you can offer even deluxe push-button tuning at a budget price!

So—see the man from Motorola now. Stock up on the full Motorola car radio line... the famous 403 at only \$39.95—the handsome deluxe and golden voice models. And—the new 412, 12 volt circuit version, compact, powerful, easy to install. It has full automatic volume control, low battery drain.

Better See the Motorola complete Car Radio Line

**Motorola** *The Golden Voice of* **Radio**



only front brakes relined if the rear has enough lining to get by. Removing the rear drum gives the mechanic an opportunity not only to check the lining, but also the wheel cylinders, grease seals, and emergency brake cables.

Inspector Jones never overlooks the wheel cylinder operation when the drums are removed. A quick

check for a leaky wheel cylinder, a major offender in highway accidents, is to pull the rubber boot away from the cylinder. If it is wet with fluid inside the boot, the cylinder is defective and should be rebuilt or replaced. Check the cylinder for frozen pistons by having someone apply the brake pedal gently while holding one shoe with

a screwdriver against the backing plate. The opposite shoe should work in and out.

Frozen or frayed emergency brake cable can be the source of a lot of trouble. Everyday there are reports of a run-away car which was parked on the hill, and drifted away into someone's house or a cause of some equally serious damage. Inspector Jones makes a special point of examining the cables by sliding them in and out of the housing while the rear brake drum is removed.

Inspecting the brake drums for cracks, scores or heat checking, is a "must" on any brake job. And, it is just as much of an offense to allow a customer's brake drum to be turned too thin as it is to allow the drum to be re-installed without turning them when necessary.

Brake fluid level in the master cylinder should be checked on every brake job. Low fluid level usually indicates a leak somewhere in the system, and the mechanic should make a thorough check on the complete system to find it. Also, remember that brake fluid should be changed periodically, just as any other fluid in the car. Dirty brake fluid can do a great deal of damage in the hydraulic brake system. Inferior brake fluid is even more hazardous since it will compress under brake application and cause a spongy pedal, erratic operation, or failure to hold. A sluggish fluid can even cause dragging brakes, since it does not allow the wheel cylinders to release quickly. Quality of brake fluid should not be taken for granted, and a shop should use a great deal of discretion in the brand or grade of fluid which is bought for use in a customer's car.

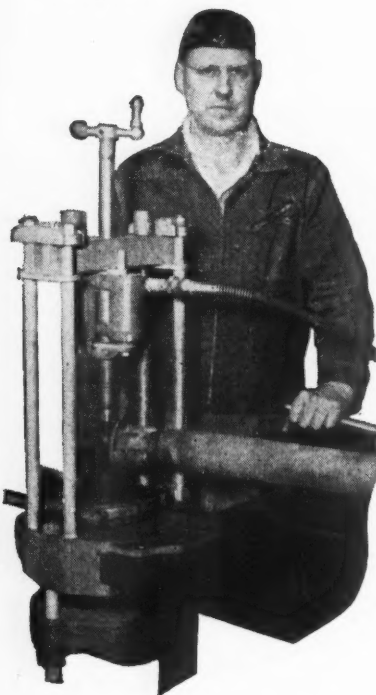
When looking for clues on faulty brake operations, don't overlook the brake hoses. Cracked or clogged brake hoses are a serious threat to a car owner's safety. A clogged hose can be checked for by opening the bleeder at the wheel cylinder and applying pressure to the brake pedal. Make a note of the amount of fluid that escapes and the pressure required. The same amount should come from each cylinder.

Brakes should be tested by driving the vehicle on a dry, clean, smooth highway.

**A TIP FROM Elmer Lee** • "The **OTC HYDRAULIC RAM** and **PRESS** are the best buy I've ever made"



**CENTER HOLE HYDRAULIC PULLER**  
**Makes Tough Jobs Easy**



Elmer Lee owns a small garage. Does all types of automotive repair.

"I use the press every day for removing and installing gears, bearings, bushings, pins—I'm amazed at how often I use it.

"I do work on all makes of cars, trucks and tractors," says Elmer, "and the 17½ ton bench press and Power-Twin ram are the handiest, most versatile tools I've ever owned . . . couldn't have built one as well or as inexpensively myself."

You, too, can pull 95% of your jobs easily, quickly and without damage to expensive parts. OTC Power-Twin ram eliminates torque, reduces friction—use as portable puller or with open throat pedestal or bench press.

Famous OTC Center-Hole Ram . . . permits easy adjustment to the work and interchange from push-puller to sleeve puller to bench press . . . a portable power unit.

**17½, 30 and 50 TON SIZES**

**POWER-TWIN**  
has these advantages:

- Compact • Light • Universal
- Versatile • Portable • Powerful
- Interchangeable • Inexpensive



**OWATONNA TOOL COMPANY**  
**321 CEDAR STREET • OWATONNA, MINNESOTA**

# How to step up your FORD business!



**Hang this sign over your door—  
it draws in Fords like a magnet!**

**Here's why:** Ford owners *know* this sign. They know that wherever they see it they can get the parts that are made right to fit right to last longer in their Fords. And they know they can expect the best service from the independent garage-owner who stocks the right parts for their Fords.

Moreover, there's a strong and dramatic series of advertisements in national magazines . . . to convince even *more* Ford owners that it pays them to look for the Genuine Ford Parts oval . . . which you can easily get.

**Here's how to get it:** Just mail the coupon today and we'll tell you how you can get this business-building sign for your garage. It'll cost you nothing.

## MAIL THIS COUPON NOW!

PARTS AND SERVICE SALES DEPARTMENT

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.  
Please send me complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME \_\_\_\_\_

INDIVIDUAL'S NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_

H

## Dents Pay the Rent . . .

Continued from Page 66

to a major national repair bill. 5,100,000 multiplied by \$20 per accident equals \$102,000,000 worth of damage reported. Of course, part of this damage has already been repaired, but there is still a tremendous volume of minor body work left to rust. And there are many thousands of wives (and husbands) who never bother to report the minor scrapes or to have the damage taken care of. Those are the customers who figure heavily in the national "Get The Dents Out Of Your Fenders" campaign. They can pay the rent in June, the month when body shops across the nation should make a concerted effort to sell this work which usually goes unnoticed.

To "get the ball rolling" on this project, Minnesota Mining & Manufacturing Company is sponsoring, for the second year running, the "D.O.O.F." Campaign. The idea was well accepted by the body shop operators in 1952 and proved to be very profitable. This year should prove to be even more successful with the new ideas which have been developed. Material furnished free of charge by "3M," suppliers of abrasives, washing tape and other body shop materials, includes direct mail postcards, wall posters, lapel buttons and tags to be hung in the car. If the shop uses this material to its full advantage, the result is bound to be gratifying.

The firm reports on a recent spot check of the nation's shops, stating that postcards were the best body "refinish salesmen" during last year's campaign. For instance, California Body Works of Long Beach, California, attributed 40 per cent of its \$2,834 monthly increase in shop volume to the cards. According to G. H. Thormahlen, return from approximately 3,500 such cards was so great that it was necessary to move the shop from a three car capacity to an

establishment that now accommodates 26 autos.

In St. Paul, Minnesota, Neal Smith, president of Smith Service,



Inc. figures that his body shop business was increased 20 per cent with the "Dents Out" postcards. Smith mailed about 200 and distributed the other 600 within the shop. They were placed on visors, on windshields and in other conspicuous

places. Smith states that they netted an average 25 per cent return. Since the cards were furnished free by 3M, the only cost was about \$4.00 for postage.

The Auto Paint Shop in Nashville, Tenn., has increased its refinish volume about 90 per month through the mailing of about 500 postcards per week. To obtain the major share of this business, a man from the shop periodically tours the streets of the Nashville town to note cars needing body repairs. Then he checks with the license bureau to give him the addresses for the mailing list.

Four thousand "Dents Out" postcards, mailed monthly by Warrington Oldsmobile in Philadelphia, have resulted in a 30 per cent increase in body shop business according to Chester Weaverling, service manager. Weaverling explained that of the 700 to 800 cars coming into the service department each month, approximately 25 per cent call for body shop work on response to the postcard mailing.

The 3M spot survey indicates, as shown above, the motoring public will buy a great deal more body work if they are reminded of it.

The "D.O.O.F." Campaign is an excellent reminder and, like last year, it will again be industry wide. Automobile manufacturers, jobbers, dealers and independent body shops will be participating.

(Continued on page 155)

Customers are interested to know what constitutes good straightening and refinishing work. This chart illustrates the various phases of body work.





YOU CAN'T BEAT  
"O'BOY"

for price...  
performance...  
convenience!

**\$55**  
net to dealer

"O'BOY" MODEL "OS"  
Hydraulic Curb Jack

## "O'BOY"

— what a jack! This popular Hein-Werner model offers everything you would want in a curb jack, at a price you can easily afford.

The "O'BOY" is ruggedly constructed of heavy gauge steel and has an exclusive leak-proof power unit and a new metal piston boot. It rolls freely on big, ball-bearing

swivel wheels. Easy-to-spot white swivel saddle permits quick positioning under vehicle. Powerful pumping unit lifts loads up to 2500 lbs. quickly and safely. Two-piece handle is easily detachable.

Take advantage NOW of the extra convenience and efficiency that "O'BOY" offers. It is bargain-priced . . . available for immediate delivery.

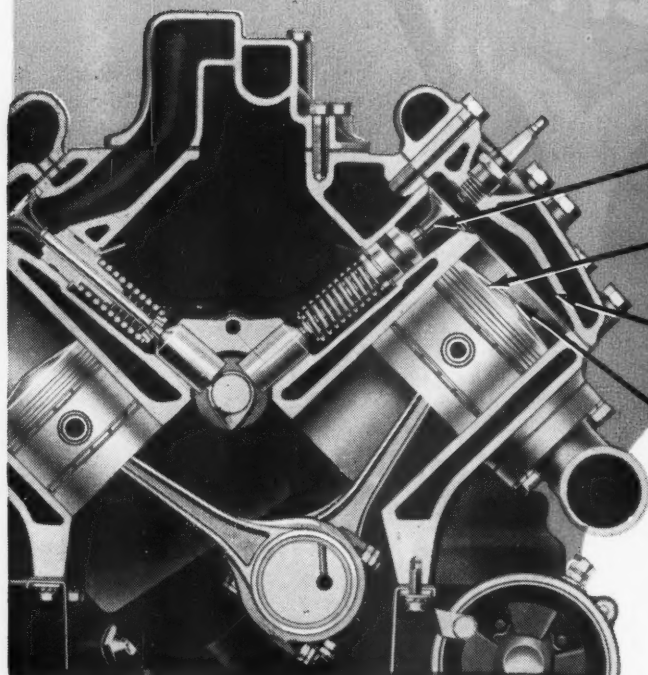
SEE YOUR H-W JOBBER OR WRITE US

**HEIN-WERNER CORPORATION, WAUKESHA, WISCONSIN**



Complete Hein-Werner line includes Under-Axle Jacks of 1½ to 100 tons capacity . . . "Bumper-Lift" . . . "Swift-Lift", Service Jacks and Adjustable Car Stands . . . "Pushmaster" and "Push and Pull" Hydraulic Jacks for body, fender, and frame repair work.

# Leading Car Manufacturers Sell M Because It's Backed by PROOF— N



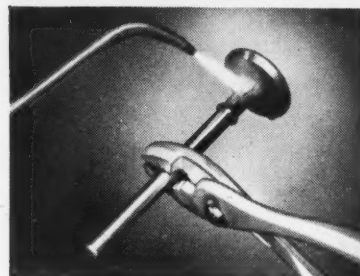
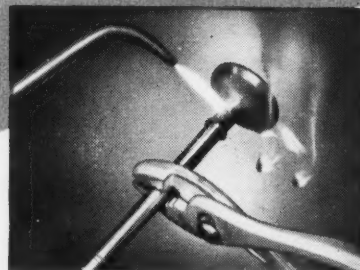
Average Operating  
Temperature Range

800 to 1400

300 to 800

300 to 550

300 to 550

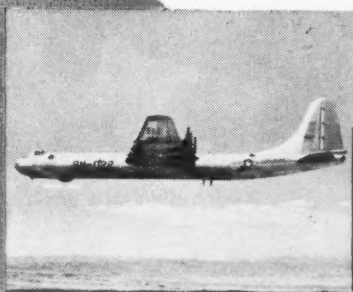


Since oil burns at 550°, an acetylene torch instantly ignites it (right top). Because engine temperatures at times are greater than torch heat, it is obvious that oil alone

won't lubricate properly. Miracle Power is needed in gas and oil because (right bottom) it is not affected by extreme heat . . . keeps on protecting your engine.



Sell Miracle Power with complete confidence of a money back guarantee.



The same basic ingredients in Miracle Power are used in the manufacture and overhaul of America's finest aircraft engines by the U.S. Air Forces and leading air lines.



Miracle Power clings to metal as butter clings to bread until it's impossible to scrape completely off. That's why Miracle Power—blend of petroleum super lubricants including colloidal synthetic graphite in suspension—lubricates when oil burns off or is temporarily absent.



Lubricates *Right* ... from the Start  
Prevents **DRY STARTING** Damage

©THE AP PARTS CORP., 1953

# Miracle Power Not Wild Claims

Car factory engineers are plenty fussy about lubrication for the engines they design. Before they approve any lubrication aid, you can be sure they have tested and checked it, backwards and forwards.

That's why it means something when Miracle Power is the only lubrication aid distributed by three leading car manufacturers to their dealers for resale to car owners.

Car factory confidence in Miracle Power has been verified by proof from the laboratory of Wetmore Hodges & Associates, Redwood City, California. They road tested two engines—one with Miracle Power, one without. After over 33,000 miles, the Miracle Power engine was using 33% less oil, gave 13% greater compression, 56% more spark plug life, 49% less cylinder wear, 15% less ring wear.

Sell the lubrication aid that car manufacturers approve. For full information about Miracle Power and its profit possibilities, contact your AP wholesaler today.

**THE AP PARTS CORPORATION**  
1535 AP Building • Toledo 1, Ohio  
Manufacturers of: MUFFLERS • PIPES • MIRACLE POWER • dqf 123

Miracle Power Division



## New Products . . . . .

Continued from Page 54

### 280. Groove Cleaner

All-power Mfg. Company: A new model deluxe piston groove cleaner features a cutter blade having a 5/64 inch cutter prong to accommodate the new piston ring grooves. It is said to service pistons from 2-1/2 inches to 5-inches, and then grooves from 5/64 inch to 3/16 inches. The tool is available for counter display cards for use on jobber counters.

### 281. Convertible Top Material

Arrott Mills, Inc: "Plaid-Top" is a three-layer fabric, created by this firm for custom made convertible tops. They are said to be color-fast and they have less tendency to show dirt than a plain top.



To complete the "custom" touch, matching seat covers can be made from a single layer of "Plaid-Top" fabric. Fabric swatches, a guarantee bond and 4-color process window poster will be sent to trimmers and top dealers on request.

### 282. Brush Seating Compound

Allen Electric & Equipment Co: A new compound, bearing the trade name "Fast-Seat" for seating commutator brushes has been announced. In paste form, the new compound is packaged in handy dispensing tubes and is suitable for use in seating brushes on all types of generators. It is said to be especially convenient to use on closed type generators where not easily accessible. It is claimed to be more efficient than brush seating stones, and assures 100 percent contact of brushes with the commutator in only 20 revolutions.

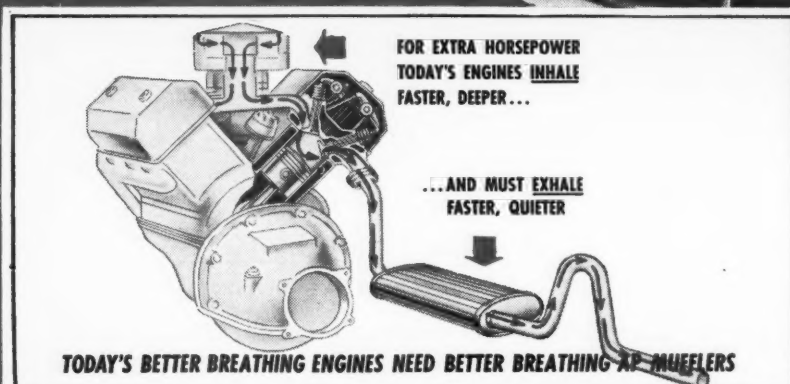
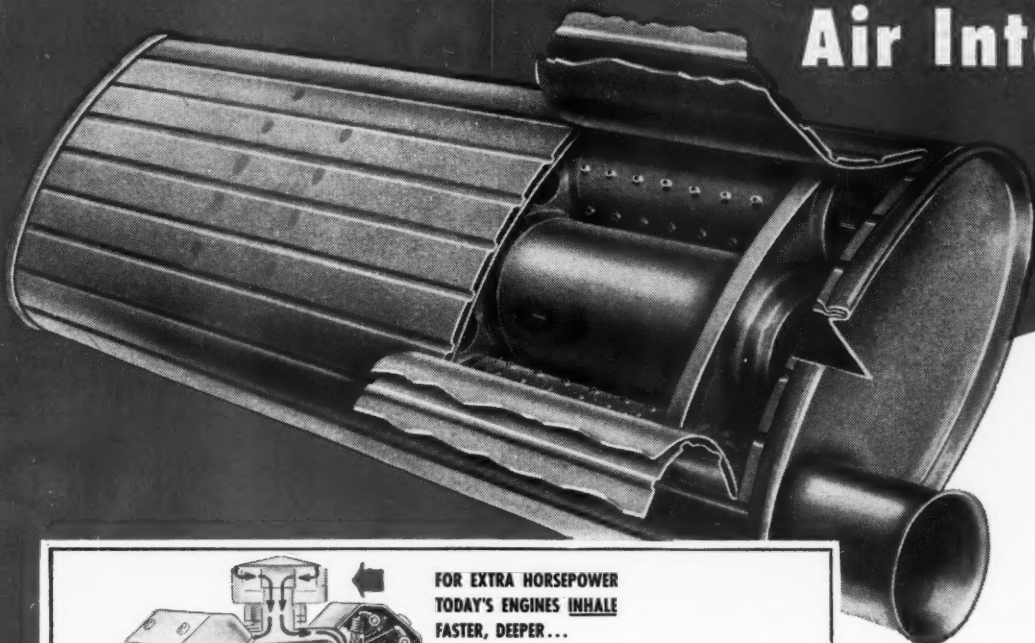
### 283. Fast Charger

King Electric Equipment Co: A midjet 6/12 volt fast charger, identified as the Model BC-57, provides adjustable charging rates up to 80 amperes for 6 volt batteries, and 40 amperes for 12 volt batteries. The charging interval is controlled by one hour moisture proof time clock. At the termination of the fast charging period, the charger automatically switches to a slow or "finishing" charge.

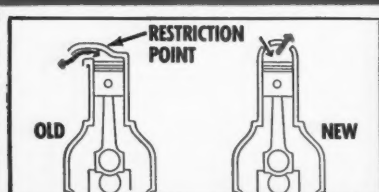
(Continued on page 119)



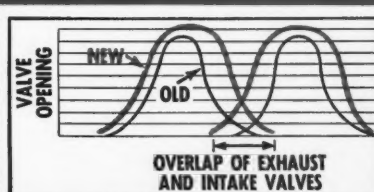
# Engineers Increase HP by Improving Better Breathing AP Mufflers Air Intake



Increased power of today's engines is due to one basic change—getting more air-gas mixture into the cylinders. In short, they breathe deeper . . . must exhale faster. That's why AP Mufflers have been redesigned to breathe better . . . to exhaust this greater quantity of gas silently and with less back pressure.



New engines breathe deeper because larger bores and valves allow more air flow and because overhead valves remove restricting angles of L-type heads, permit both incoming mixture and exhaust to get in and out faster.



Camshafts have been redesigned so that exhaust and intake valves are open longer at the same time, thus causing tremendous "run-down" noises and creating new muffling problems—which have been solved by better breathing AP Mufflers.



This decal will identify you as the specialist which national advertising has told motorists to depend on for muffler service.

More *horse* power

More *sales* power

with

**AP**

# Engine Breathing Exhaust Greater Quietly, Freely

Take a deep breath, hold it, then exhale sharply. Hard to control the sound, isn't it?

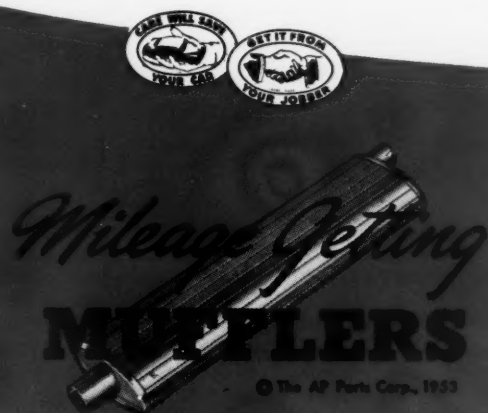
That's a simple explanation of why modern engines need modern AP Mufflers.

These engines get their extra power by breathing deeper—swallowing larger gulps of air-gas mixture. When they exhale, the larger quantity of faster moving gas hits the mufflers with a bang, bigger valves boom, longer overlap between the opening of intake and closing of exhaust valves adds more noise. Result: new silencing problems, more back pressure.

But AP has solved both problems. How? By "fenced-in" silencing—dead air spaces which absorb shell noises; by short chambers to kill valve boom; by larger, scientifically positioned low frequency chambers to quiet overlap sounds; by larger inner tubes to exhaust the increased gases quietly and freely.

Yes, better breathing engines need better breathing AP Mufflers. So keep pace with car improvements—call your AP wholesaler today.

**THE AP PARTS CORPORATION**  
1584 AP Building • Toledo 1, Ohio  
Manufacturers of: MUFFLERS • PIPES • MIRACLE POWER • dgt 123



## New Products . . . . .

Continued from Page 117

### 284. Valve Manual

**K-D Mfg. Co.:** The 1953 Edition of the Ford Valve Service Manual gives complete, step-by-step procedure with illustrations for servicing valves in all Ford-built motors from 1928 to 1953 inclusive.

Beginning with Model A & B 4-cylinder engines, the servicing of each type of Ford-built engines (up to and including V-8 valve-in-heads) is described in its own chapter. Eighteen chapters cover all phases of valve repair, free type valves, valve grinding, etc. Tool chart on back gives correct tool combinations necessary for each engine. Fifty pages, 84 illustrations on durable kraft paper, size 5 x 7.

### 285. All-purpose Snips

**Plomb Tool Company:** Addition of 11 all-purpose snips to the PROTO line has been announced. Included are three multiple-leverage snips—left, right and straight cut; three duckbill or circular snips—7 in., 10 in. and 12 in.; two combination pattern snips—10 in. and 12 in., and three straight or regular snips—7 in., 10 in. and 12 in. All of these snips cut metals, leather, canvas and other materials. Shearing action of the blades is said to be uniform over their entire length.

The multiple-leverage models, also called aviation snips, are for precision cutting of intricate patterns. They have a patented double-compound action, which increases the hand pressure transferred to the blades by 200 percent. The duckbill or circular snips are for cutting circles, curves, etc.; the combination snips are for irregular but not too intricate patterns, and the straight or regular snips are for easy curves and straight cuts. These three styles have hollow-ground blades, graceful curves, rounded edges, and large bows in the handles.

### 286. Coil Spring Spacer

Precision adjustment to compensate for spring sag in knee action cars is now possible with the new contour type Coil Spring Spacers by **Bear Manufacturing Company**. Made of cast aluminum, the new spacer is grooved to fit the coil spring and spring seat. This eliminates the danger of the spring slipping to one side or the other. The new Bear coil spring spacer is designed to fit both pig-tail and flat coil spring ends. It automatically conforms to the pig-tail after being inserted. Now available in 1/4, 3/8 and 1/2 in. thicknesses and a complete range of sizes for precision adjustments on all cars.

### 287. 40-inch Creeper

A new idea in garage creepers has been brought out by the **Smash-Proof Company**.

The new creeper is forty inches long and is equipped with six casters. The extra pair of casters in the middle is designed to allow the creeper to roll over most any kind of floor regardless of holes which are often encountered in garage floors.

(Continued on page 124)



**FARM PEOPLE** are important customers of the automotive industry. Take Butler County, Kans., for instance, with 2207 farms. These farm families own 2064 cars, 1402 trucks, 2340 tractors. That's an average of 2.6 automotive units per farm.



**...AND MAIN STREET TOWN PEOPLE** are equally important. They are way above average in car ownership. About 2450 of the 3500 families in Eldorado, county seat of Butler County, own one or more cars. If these 3500 families lived in a big city like Chicago, only about half as many would be car owners.

## ***Together they equal America's biggest automotive market***

The people of the Country-Side Market—both farm and non-farm—live side by side and, from a distribution standpoint, are one market. But it takes two kinds of magazines to reach and sell the whole Country-Side Market—a farm magazine for the farm customers, a town journal for the non-farm customers. That is the Country-Side Unit—a 4-million package buy at a package price.

Farm Journal, of course, is America's largest, most successful farm magazine. Pathfinder, the

Town Journal, is the *only* news-base magazine devoted exclusively to Country-Side family interests. Together, as the Country-Side Unit, they reach and sell 4,000,000 of the best families in America's biggest automotive market. The Country-Side Unit gives manufacturers and their dealers exactly what they want. For manufacturers, it is a powerful new sales approach to the *whole* Country-Side Market. For dealers, it has the local impact they demand: coverage among their best customers and prospects *like a local newspaper*.



### **THE COUNTRY-SIDE UNIT . . .**

**4,000,000 of the best automotive customers in  
America's biggest automotive market**

**THE COUNTRY-SIDE UNIT  
SELLS THE WHOLE COUNTRY-SIDE MARKET**





## THE COUNTRY-SIDE MARKET



There are 43 million families in the United States. Nineteen million of them—more than half the people—live in trade centers of less than 10,000, in cross-roads villages, down country lanes, or on farms. This is the Country-Side Market—America's Biggest Automotive Market.

Country-Side families buy well over half the nation's cars, over a third of the trucks and just about all the tractors. Country-Side families account for most of the nation's service business. There are very few

dealers, in fact, who do not depend on these people for at least a portion of their business—and a majority of the nation's dealers get *all* their business from Country-Side families.

That's why dealers are pleased when automotive advertisers give them sales support through the Country-Side Unit—a combination of Farm Journal and Pathfinder Magazines—by far the biggest approach to America's biggest automotive market.



## SPRAY GUNS for every purpose and material

Today, thanks to recent developments in spray guns and material handling pumps, you can use spray guns for more jobs than ever before.

For example, the Binks line—in addition to guns for applying factory-quality paint jobs—includes equipment for reconditioning the interior of used cars...for undercoating...for blowing out fuel lines...for car washing...and for cleaning engines.

And this is only a beginning. With 36 gun models and 1050 nozzle combinations currently available, Binks equipment is applying materials ranging from those fluid as water to those thick as tar. So, whatever the finish or coating, Binks can tell you if spraying is possible...and what equipment to use. Send in coupon, or write: Binks Manufacturing Company, 3124-34 West Carroll Ave., Chicago 12, Ill.

**For FREE booklet of painting hints, MAIL COUPON!**

**Binks**  
EVERYTHING FOR  
SPRAY PAINTING

Binks Manufacturing Co., 3124-34 West Carroll Ave.  
Chicago 12, Ill.

Gentlemen: Please rush my FREE copy of "SPRAY PAINTING HINTS," the pocket-size guide to overcoming common troubles in spray finishing. I understand there is no obligation.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



REPRESENTATIVES IN PRINCIPAL U.S. & CANADIAN CITIES • SEE YOUR CLASSIFIED PHONE DIRECTORY



## Paint Shop

Continued from  
Page 68

show them that he was turning out quality jobs at a lower price. Little by little, he restored the dealers' confidence and they now account for more than 30 per cent of his work.

In 1952, the shop turned out 1500 paint jobs, more than double the volume of business in the previous year. By all indications, this year will surpass last year's total by several hundred.

He believes that quality—then price—are the main factors for the success of his venture. He also believes that 95 per cent of his business is derived by word of mouth. "When people are satisfied," he explained, "they tell their friends about us. Most of them will shop around, then they come to us. Who else will give you a year's guarantee—at \$39.95?" Richter admits that only by volume business with a small margin of profit is he able to offer a dependable paint job at a low price.

He advertises in the Camden and community papers, and plans to purchase a quarter-page ad in the telephone directory. He also has his ad on a stock car that competes in New Jersey ovals. For good will purposes, he paints community school and church buses free of charge.

Depending on the season and the volume of business, Richter employs from 6 to 15 employees. He recently purchased a double-spray booth and intends to install a bake oven. He attends paint clinics and regional meetings to keep up with the latest advancements.

Richter has convinced the car owners of southern New Jersey that "it pays to drive 13 miles from Camden or Philadelphia to save \$40"—and that's exactly what the sign that fronts this Amazing Auto Paint shop says.

Life is ten percent what you make  
and ninety percent how you take it.  
—Irving Berlin





# First and Foremost

FOR HIGH COMPRESSION ENGINES

## FITZGERALD GASKETS

- Performance proven . . . the best answer to the need for stronger, tougher gaskets for modern high compression engines.
- For replacement trade and original equipment, FITZGERALD Gaskets have stood the test of time since 1906.
- Sold throughout the world.
- The name "FITZGERALD" stamped on every gasket is your guarantee of satisfaction.

GREASE RETAINERS • CORK GASKETS • FITZ-RITE TREATED FIBER GASKETS  
FOR OIL, GASOLINE AND WATER CONNECTIONS  
COMPLETE SETS FOR MOTOR REBUILDERS



**FITZGERALD**

*Gaskets*  
SINCE 1906

THE FITZGERALD MANUFACTURING COMPANY  
Torrington, Connecticut

CANADIAN FITZGERALD, LTD.  
TORONTO, CANADA

BRANCH AND WAREHOUSE  
LOS ANGELES, CALIFORNIA



## 288. Foreign Car Manual

Trader Publishing Company, Ltd: Volume Two of the Servicing Guide of British Motor Vehicles has come off the press. It is divided into three sections for cars, motor vehicles and tractors, and a number of the latest cars, such as the Austin Seven, Ford Consul and MG-TD are included. Com-

plete information to guide the mechanics is overhaul, tune-up, front end work, etc. are included.

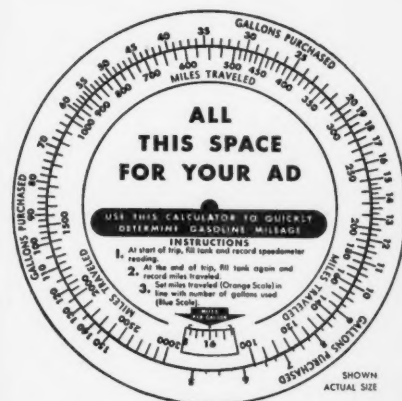
## 289. Washer Fluid

Automotive Solvents & Specialties, Inc.: Viso is a new kind of windshield washer fluid which is said to remove bug spatter during summer driving and prevent the

washer jar from breaking due to freezing in the winter. It also prevents ice formation on the windshield when the jets are used in sub-freezing weather. It is said not to evaporate from the jar and does not harm chrome, rubber and paint. The green liquid comes in a disposable one-shot envelope and transparent plastic.

## 290. Premium Item

Paco Products: A pocket-size mileage calculator with a "Dial-within-a-dial" to indicate miles per gallon, is available as a "give-away" premium for shops and dealers. An open space in the center of the dial can be imprinted with the advertiser's name, address, product or service. To oper-



ate the calculator, the motorist sets the inner dial at "the miles traveled" to match the outer dial at "gallons purchased." The miles per gallon will appear at the arrow in the opening at the inner dial. The business messages can be imprinted by the manufacturer at the time of order.

## 291. Tire Gun

Gates Rubber Company: A new device now on the market is said to make it possible to fix flat tires without removing the tire from the wheel. The repairman removes the puncturing object and seals the hole with a shot of compound from the Vulco-Weld Tire Gun. This is said to make a permanent repair. Shortly after the compound enters the puncture, the manufacturer explains, it vulcanizes and actually becomes a part of the tire itself.

(Continued on page 126)

**1/2 Ton Low Cost TRAVELLING CRANE**

Lifts and moves up to 1,000 lbs., operates easily in close quarters, low enough to go into elevators, small enough to operate in aisles and through doors.

Integral hydraulic pumping unit; no hose or couplings to fail. Moves and places engines, dual wheels, oil drums, etc. Lifting height over 6 ft. Write for 1/2 ton Mobilcrane Bulletin.

**LEMPCO MOBILCRANES**

Also available in 1 and 2 TON MODELS

For 35 years a leading builder of machine tools

LEMPCO PRODUCTS, INC.  
Bedford, Ohio

Gentlemen: Kindly send Bulletin on ☐ 1/2 ton Mobilcrane; ☐ 1 and 2 ton Mobilcrane.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_



—Mr. G. J. Werner, Traffic Manager, Motorola, Inc., on screen of new Model 21T4.

## **“Our program never goes off the air!”**

“Tens of thousands of component parts . . . thousands of suppliers all over the country . . . a daily ‘hot sheet’ of critical items needed within 24 hours or less . . . that’s just a glimpse of our traffic picture at Motorola!”

“Yet our production lines never stop for lack of available parts — because our production program never goes ‘off the air.’ We use Air Express! With our tremendous, and steadily growing overall shipping volume, there is daily need for this top-speed, *reliable* service.

“Many times a day, we specify Air

Express — and exacting production schedules are met. Show models, advertising matter, itinerant displays and penalty contract shipments are always subject to deadlines—and Air Express gets them there on time.

“Shipping costs are secondary on such shipments. Yet we find that Air Express costs compare favorably with other air services. In many weights and distances, its rates are lowest of all!”

“Day in, day out, Air Express is an integral and important cog in Motorola’s overall operation.”

Whenever you ship by air, it pays to say—Air Express! Division of Railway Express Agency.



**AIR EXPRESS**

**GETS THERE FIRST**

*via U. S. Scheduled Airlines*

## New Products . . . . . Continued from Page 124

### 292. Impact Wrenches

**Independent Pneumatic Tool Co.:** Three new Thor air operated impact wrenches, specially designed for automotive use, are available from this company. They are furnished in ½ inch, ¾ inch, and 1 inch sizes and have right angle attachments available for each size. Handy carrying cases

with a selection of sockets have been supplied with ½ inch and ¾ inch models.

### 293. Electric Hoist

**Harnischfeger Corporation:** A new model Zip-Lift Electric Hoist with rope control has been announced. It is a standard Zip-Lift designed to be operated with

P & H's "One Hand" Rope Control. It uses wire rope for hoisting and features double brake, oil bath lubrication, fully-enclosed construction and greased-packed motor bearings. It comes in two models with lifting capacities of 500 and 1,000 pounds. Hoisting rates are 25 and 13 ft. per minute. Both models are available with 12 ft. and 18 ft. lift.

### 294. Mechanic's Covers

**Vacuum Grip Cover Company:** Vacuum Grip fender covers for mechanics feature neoprene tops, a cushion back of sponge rubber, cord and fiber back reinforcements. They are said to be wipeable, non-slip and have all materials vulcanized as one. It can be put in with the firm's name or mechanic's number. They are



available in five piece sets, including two fender covers, a carpet cover, a seat cover and a wheel cover. The manufacturer states that the average life of these covers is 2½ years. Covers are available in red and black and the sponge rubber is said to act as a vacuum grip, to the metal or seat so you cannot slip off. They are impervious to oil, grease, and acid.

### 295. Automotive Manuals

**Storm-Vulcan, Inc.:** Has issued two bulletins and an eight-page manual containing engineering, construction and operation details of the new Storm-Vulcan model 15A crankshaft grinder. The bulletins describe a new simplified method of grinding and honing connecting rod caps and bearing bores, and a new development in resurfacing automotive and industrial engine cylinder heads.

(Continued on page 128)

**Make V-8 valve grind jobs Pay Off  
and Get a Double Profit by Installing  
JOHNSON adjustable tappets**



**\$**  
It's easier to sell tappets when the head is off. And you can make a double profit with less work by recommending Johnson Adjustable Tappets with your valve grind jobs. During a valve grind, lift out the old tappets and slip in Johnson Tappets. As simple as that you can make this double profit and save the hard work of grinding off valve stems.

Your customer is better satisfied because you can adjust Johnson Tappets to give him a smoother, quieter engine. Adjustment is simple. Special spanners included with each set of tappets leave both hands free to make faster, more accurate adjustments. Once you've set the patented self-locking screw, Johnson Tappets will maintain the setting.

There's more profit for you if you sell Johnson Adjustable Tappets with every Ford and Mercury V-8 valve grind. Order a supply of Johnson Tappets today.

**SEE YOUR JOBBER!**

*"Tappets Are Our Business"*

**JOHNSON  PRODUCTS**

INC.

**MUSKEGON, MICHIGAN**



**I can't finish this lubrication.  
Jim's got all the air on his  
undercoating job!**

**What we need  
is a new Westinghouse  
Air Compressor**

**W**HEN a limited air supply makes you shut off one tool to operate another, it's time to correct the situation. And the best way to do it is with a new Westinghouse Air Compressor that has ample capacity for the equipment you're operating today and some to spare for the tools you may add tomorrow.

You'll find Westinghouse Air Compressors your best answer to tomorrow's air problems, not only in terms of capacity, but in terms of long, trouble-free service, too.

For example, you'll never damage a Westinghouse "Y" Air Compressor by running it when oil is below the proper level. This compressor almost thinks for itself—when oil is low it refuses to pump air. This is only one of the exclusive Westinghouse features—others are a positive starting unloader and controlled pressure lubrication.

Ask your Westinghouse Air Compressor dealer to analyze your air requirements and recommend the model suited to your needs. His name is in the classified section of your telephone directory. He is also equipped to service your Westinghouse Air Compressor through its working life.

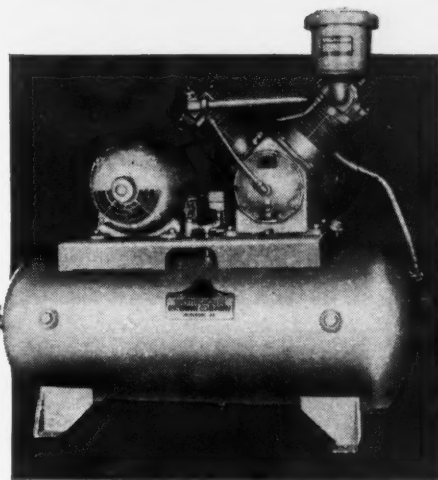
# Westinghouse Air Brake COMPANY

INDUSTRIAL PRODUCTS DIVISION

WILMERTING, PENNA.

Factory Branch: EMERYVILLE, CALIF. Distributors throughout the United States... Consult your Classified Directory. Distributed in Canada by: Canadian Westinghouse Co., Ltd., Hamilton, Ontario.

Chilton's MOTOR AGE, May, 1953

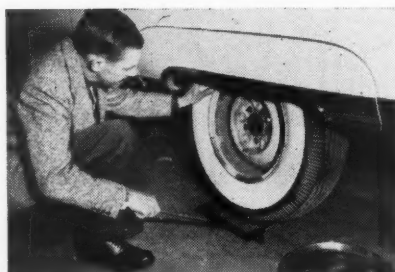


**WESTINGHOUSE 15 hp "Y"  
WILL DO THE JOB**

This new 15 hp Westinghouse "Y" is large enough to handle all your needs. And there's a complete range of smaller sizes down to 1½ hp. They give you the high pressure needed for jobs requiring high pressure, and, with the addition of a Westinghouse Reducing Valve, fixed low pressure for jobs like paint spraying or body polishing.

## 296. Wheel Lift

**Clark Distributors:** A re-sale item designed for permitting emergency tire changes on the family car without soiling clothes is known as the Clark Wheel Lift. It is said to be especially useful on the late models which have heavy wheels and low fenders.



Weighing four pounds, it can be folded into a compact package and stored into a tool box when not in use. It permits sliding the wheel out from the car after the lug nuts have been removed without getting the tire up against the clothes. It is also useful in a shop, in a department where wheels are removed frequently.

## 297. Tool Catalog

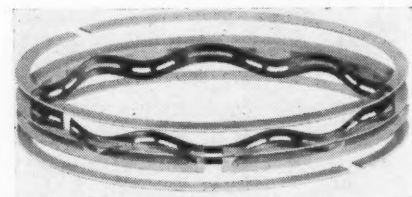
**The Mall Tool Co.:** A catalog on pneumatic tools, grinders, drills, screwdrivers, polishers, sanders, circular and chain saws, and socket wrenches is now available. The contents include nine tools comprising 35 models, plus attachments.

## 298. Wall Chart

**Purolator Products, Inc.:** A new wall chart that provides complete installation data on oil filter refills is available from Purolator. The chart features a detailed cross-reference chart to bring dealers up-to-the-minute information regarding interchange of elements.

## 299. Piston Ring Set

**American Hammered Automotive Replacement Div. of Sealed Power Corp.:** Recently introduced, the "Krome-Oil" piston ring set is said to help solve the problem of break-in by the process of pre-seating. American Hammered pre-seating is a precision lapping process applied to the top groove compression ring at the factory. It is said to be equivalent to three



to five hundred miles of actual engine operation. The face of the ring is machine-threaded to carry a thin film of oil for lubrication during the break-in period. One of the features of the "Krome-Oil" set is self-selling envelopes which explain in text and diagram, the functions and advantages of each ring in the set.



Protect the tools of the trade  
with a **HUOT  
TOOL  
CHEST**



Model 100

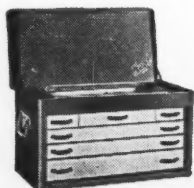
- Made by mechanics—for mechanics
- Snappy, streamlined appearance
- Shop data chart; job card clips
- Drawers flock-lined for protection
- Man size handles; built-in locks

Seven of the eleven drawers are lined to take good care of your precision gauges and tools. Note the special drawer to handle your quarter inch hand drill . . . and the handy Tote Tray. A Huot Chest is a professional-looking job all the way through . . . and built to stand up under heavy abuse. Bright plated hardware . . . 2-tone hammerlin baked enamel finish . . . oil and grease resistant—just wipe it off to keep it clean. 18 $\frac{3}{4}$ "x26"x12".

For easy movability, it fits nicely atop a Model 250 Porta-Cab. Ask your jobber or write for bulletin on Huot Tool Chests and Cabinets.

**HUOT MFG. CO.**

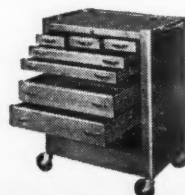
585 N. Wheeler Avenue  
Saint Paul W4, Minnesota



Model 101 Chest



301 Tote Tray



250 Porta-Cab

Ask Your Jobber, or Send Coupon

**HUOT MANUFACTURING COMPANY**

585 N. WHEELER AVE. • ST. PAUL 4, MINNESOTA

Please send free bulletin on Tool Chests and Cabinets

NAME .....

ADDRESS .....

Name and Address of  
your Favorite Jobber .....

# SWISS MOVEMENT OF 1914

A Swiss greenhorn, Henry learned to like the sea.

But it took 39 years and the help of a sour cornet note and a wayward streetcar.

Reading time: 1 minute, 49 seconds

**I**N JANUARY, 1914, in a little farmhouse outside Dele-mont, Switzerland, Papa made up his mind. It signaled a mass migration which may not have been history's largest, but certainly among its most ambitious. Papa decided to take the entire family—Mama, 10 children, and himself—to America where "the children can have opportunity."

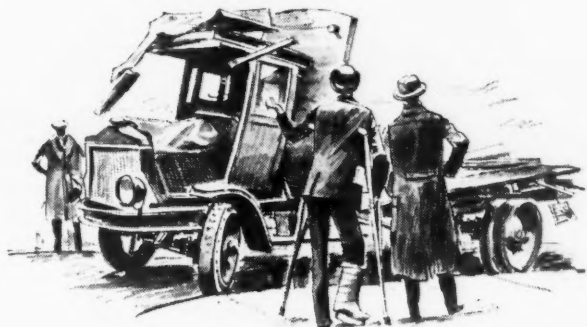
Of the 10 children who paraded down the gangplank in New York the following spring, the greenest by far was Henry, age 13. He had been seasick since the coastline of France blended into the horizon.

"In Switzerland," Henry reported, "we weren't used to the motion of the sea. The Alps don't bob."

In 39 years, the shaky boy has developed into a solid American—owner of a successful Dodge-Plymouth business.

The family settled on a New England farm and Henry attended a country school. Later he went to work in a mill.

But Henry's first love was automotive mechanics and he soon was working in a country garage. He has been connected with autos since, except for one brief interlude when a sax reared its ugly head. That was 1921. Henry decided that the music world needed one more saxophone—his!



This episode ended on a sour note—strangely enough not Henry's. He was playing at band practice in a music conservatory where he had won a scholarship, when a cornet player overshot an eighth note.

"Our bandmaster broke down," recalled Henry. "He said he was heartsick to see us study so hard with no future. I took him at his word and returned to the garage."

Four years later—on a crisp October day in 1925—the decision looked wise. Henry, now operating his own garage, was prospering. He was a happy young man as he backed a customer's truck out. His joy ended in a shatter.

A streetcar ripped into the truck, pinning Henry in the cab and crushing his legs. Pried out of the wreck, Henry heard doctors predict he never would walk. But the coura-



geous young man beat the odds. He was home in five weeks. But it was months before he discarded his crutches.

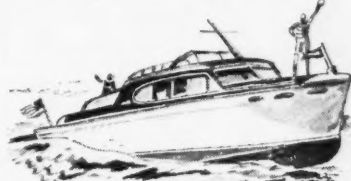
His bright future had faded. His savings were gone; his garage out of business. Thumbing glumly through a trade magazine, Henry saw an advertisement announcing a new model for a car which had no local dealer.

On a desperate hunch, he called the company. The next day Henry was in business—selling automobiles. Still on crutches, he started a one-man dealership, acting as his own sales force and service department.

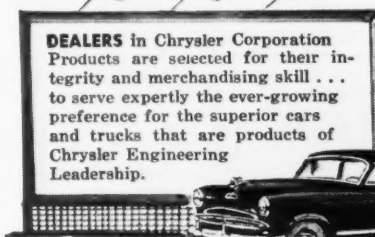
"I decided," Henry said, "that I could overcome my handicaps with a good reputation. I treated people like I wanted to be treated. Simple, but a very effective rule."

Because of his reputation, Henry earned a Dodge-Plymouth dealership in 1927 over many applicants. Today his automobile business is the largest in the city.

Success has permitted Henry to become a boating enthusiast. His cabin cruiser is a familiar sight in Eastern waters. It completes his transformation. And he never, never gets sick at sea.



Write for our free booklet of true stories about enterprising men. Chrysler Corporation, Highland Park 3, Michigan.



**CHRYSLER CORPORATION**

PLYMOUTH • DODGE • DE SOTO • CHRYSLER & IMPERIAL CARS • DODGE "JOB-RATED" TRUCKS  
FINE CARS OF GREAT VALUE





#### Ford Dealers Receive Plaque

Six Milwaukee Ford dealers received a plaque for outstanding dealership accomplishments during 1952, from R. P. Wood, district manager. They are from right to left: W. A. Mijia, field mgr., Rockford district; Ben Selig, Knippel Selig Co., West Allis, Wis.; Robert Soerens, Milwaukee, Wis.; R. P. Wood, district sales mgr., Rockford, Illinois; Len Rohrback, N. W. Motor Car Co., Milwaukee, Wis.; L. Seigel, Al Shallock, Inc.; Jack Wunderlick, Wm. Zefferel, Inc., Milwaukee, Wis.

#### New Cars Registered Pass Million Mark, Polk Says

More than a million new passenger cars were registered during the first quarter of the year, R. L. Polk reported. This compares with 919,715 new cars registered during the first three months of 1952 but did not approach the record-breaking first quarter of 1951, when 1,416,162 new cars were licensed.

Spurred by new model announcements of some major producers, together with ending of government controls, car registrations reached 396,558 in February and 386,221 units in January. Should registrations for March approach the 400,000 mark, as appears highly possible, the total for the first quarter will pass the million mark.

## Tie in with **Saf-Lift** ads in Post and Colliers to boost your JACK PROFITS

campaign continues in May 2 Post, May 16 Collier's.



It's smart business for you to tie in with Saf-Lift national advertising in *Saturday Evening Post* and *Colliers*. Follow the merchandising ideas below and start getting your share of BIG SAF-LIFT PROFITS. Saf-Lift bumper jacks are EASY TO SELL, especially when demonstrated! Experience shows that you can sell 9 Saf-Lifts for every 10 demonstrated! Your Ausco Jobber will be glad to furnish free newspaper mats, window display material and other Saf-Lift merchandising assistance. Ask him or write:

AUTO SPECIALTIES MFG. CO.  
DEPT. MA-5, ST. JOSEPH, MICH.



**PROFIT TIPS** on how to cash in on this special SAF-LIFT Post & Colliers promotion:

- Put up blow-ups of Saturday Evening Post and Colliers ads to identify yourself with national Saf-Lift advertising.
- Use free Saf-Lift newspaper mats furnished by your Jobber.
- Demonstrate Saf-Lift at every opportunity... "to demonstrate it is 90% of the sale!"
- Display Saf-Lift jacks in conspicuous spots to arouse customer interest.

**AUSCO Jacks**



#### Hillman Minx for '53

The 1953 Hillman Minx convertible features a redesigned body and front end, push button door handles and restyled bumpers with larger bumper guards.

#### GM's Dealers, Executives Conclude Spring Meetings

Forty-eight representative General Motors dealers from the United States and Canada concluded their sessions at Detroit with top GM executives in the spring meetings of the General Motors Dealer Councils.

The dealer council plan was organized by General Motors more than 17 years ago in the interest of more effective and equitable factory-dealer relationship. The basic purpose of the council is to

(Continued on page 134)

*Allied* \*  
A.P.C.  
*American*  
Brakeblok

BALKAMP

**Belden**

BRIDGEPORT

**BRIGGS**

*BROWN LIFE*

CELORON

**DETROIT**

**DITMER**

DUCKWORTH

**ECHLIN**

**Federal**

*Allied*  
GRAPHO

MARTIN-SENOUR

MicroTest

**Modac**

Monmouth

*New Britain*

*Allied*  
PRECISION

**PURITAN**

RARITAN

*Allied*  
RAYMOND

*Soundmaster*

**STANDARD**

**Spicer**

*Thomson*

*TRICO*

UNITED

W.S.A.I.

*Allied*  
WISCONSIN

ZOLLNER

# For exceptional service



**On normal needs...**



**In emergencies...**

*Your NAPA Jobber  
is a Good Man to Know!*

● From his own broad stocks, your NAPA Jobber can promptly meet the vast majority of your parts requirements—for cars and trucks of *all* makes and ages. Of equal importance, the lines your NAPA Jobber stocks are *genuine quality* lines in every respect. But what of "emergency" calls . . . for rarely used numbers that no jobber normally stocks? Here, too, the NAPA Jobber is equipped to give outstandingly prompt service. From

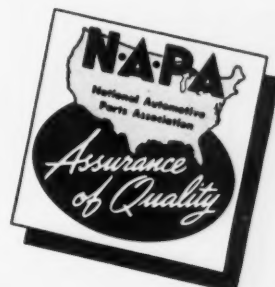
master stocks in the nearby NAPA Warehouse, he can get the parts you need in record time—usually overnight or quicker . . . if needed.

Add up the hours you save—the *work hours you gain*—when you do business with your NAPA Jobber. Why shop around? *Concentrate* your purchases with a "good man to know" . . . your NAPA Jobber!

NATIONAL AUTOMOTIVE PARTS ASSN. DETROIT 1, MICH

# N.A.P.A.

*is the largest Independent Parts  
Organization in the Industry!*



# IT'S A GOLD



EVERYBODY WANTS

## THOUSANDS

of mechanics from coast to coast have been striking it rich! Reports are pouring in that GOLD MINE and LEAK-PROOF CHROME-CONTROL PISTON RINGS are boosting profits, saving time and increasing business wherever they're tried. There is still time to get in on this big bonanza... see your jobber!

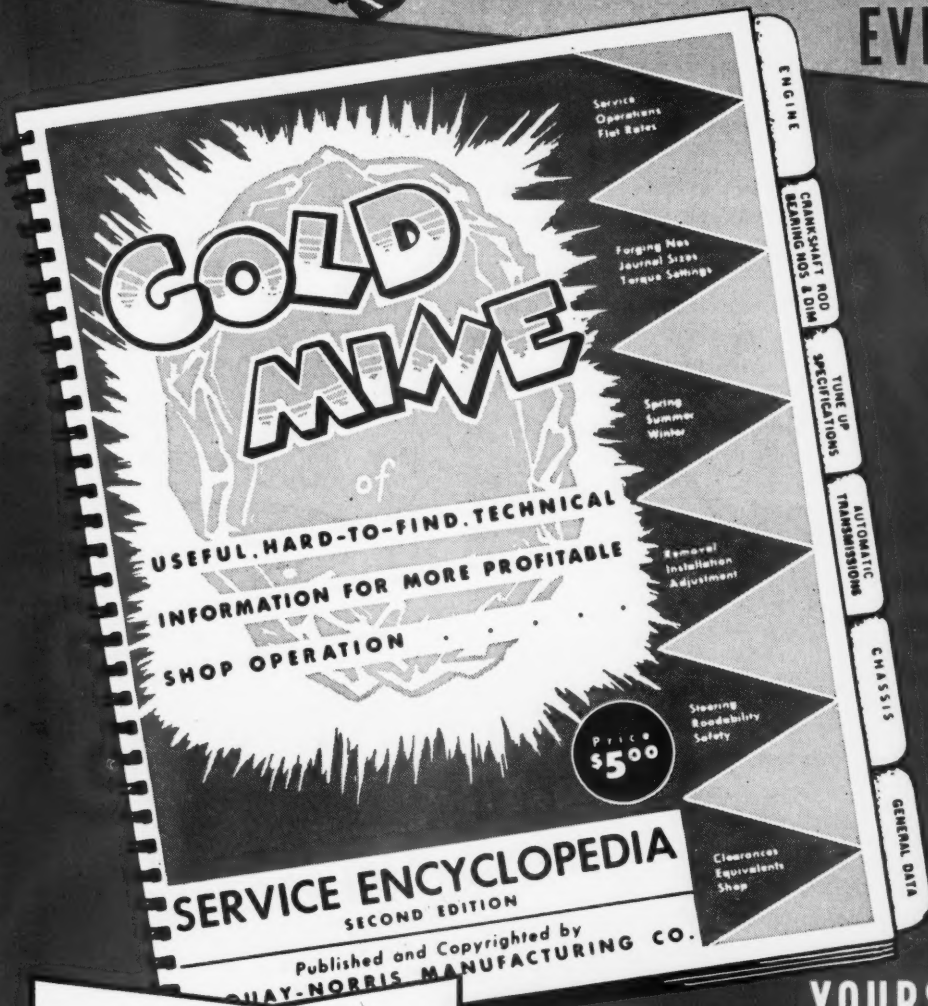


## YOURS FOR THE ASKING

Simply place an order for four sets of Leak-Proof Piston Rings. You select the sets you want. You will be billed for the sets at your regular price by the McQuay-Norris jobber from whom you buy. HE WILL SEND THE SERVICE ENCYCLOPEDIA TO YOU AT NO EXTRA CHARGE. Can anything be more fair and liberal than that?

## McQUAY NORRIS MFG., CO.

**This Book is for  
Sale for \$5.00  
Yet it is yours  
for the Asking**



Published and Copyrighted by  
McQUAY-NORRIS MANUFACTURING CO.



# RUSH

THIS COMBINATION!

**CHROME  
CONTROL**



with the  
**NEW "400" OIL RING**

THIS SET WILL OUTPERFORM ANY OTHER  
PISTON RING SET IN THE "HARD TO HOLD"  
JOBS REGARDLESS OF KIND, DESIGN OR PRICE

SAINT LOUIS 10, MISSOURI



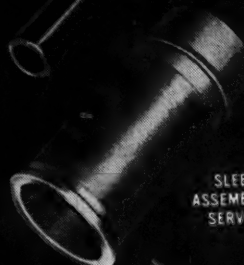
THE  
**McQUAY-NORRIS**  
**Complete**  
**LINE SERVICE**



PISTON  
SERVICE



PIN AND  
BUSHING SERVICE



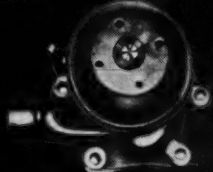
SLEEVE  
ASSEMBLY  
SERVICE



VALVE  
SERVICE



BEARING  
SERVICE



WATER PUMP SERVICE



SOCKET  
AND ROD SERVICE



SHACKLE SERVICE



KING BOLT AND  
BUSHING SERVICE



FRONT  
END SERVICE



## Auto dealers report 20% to 50% MORE SERVICE JOBS with Executone

Large and small dealers everywhere are selling more customer labor and building good will with Executone Intercom. Jobs are routed, parts and tools ordered, information exchanged—all without wasteful running around.

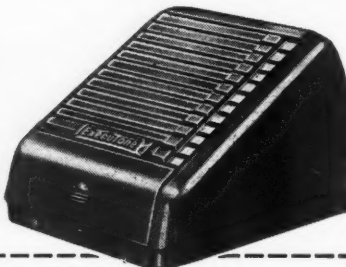
With Executone you just *push a button and talk*. Production is continuous and uninterrupted. Executone helps you turn out more service jobs with your present facilities...*helps increase your profits!*

### SERVICE on Your Premises

*Executone factory-trained technicians in your area provide prompt dependable service—right on your premises—whenever required!*

# Executone

INTERCOM, VOICE-PAGING AND  
SERVICE DISPATCHER SYSTEMS



Mail  
Coupon  
Now!

EXECUTONE, INC., Dept. E-10  
415 Lexington Ave., New York 17, N. Y.  
Without obligation, please send booklet describing  
how Executone helps turn out more service jobs.

Name

Firm

Address  City

In Canada—331 Bartlett Ave., Toronto

## GM Meetings

Continued from Page 130

facilitate the exchange and development of ideas on how better to serve the customers.

Representatives of GM participating in the three sessions included Harlow H. Curtice, president, and Albert Bradley, L. C. Goad and R. K. Evans, executive vice-presidents.

### Ford Announces Changes In Sales Department Staff

Ford Division of Ford Motor Company announced three major changes in its sales department executive staff.

C. R. Beacham, who has served since 1944 as Southeast Regional sales manager, with headquarters in Chester, Pa., will become Northeast Regional sales manager with offices in New York City.



C. Gordon Johnston

C. Gordon Johnston, Chester District sales manager since 1951, will succeed Beacham as Southeast Regional sales manager. A successor to Johnston will be announced later.

Charles J. Seyffer, Northeast Regional sales manager for eight years, will become manager of sales administration of the general sales staff in Dearborn, Mich.

All appointments are effective May 10.

You are only young once. After that it becomes necessary to take up a new line of excuses for what you do.  
(The Hoosier)

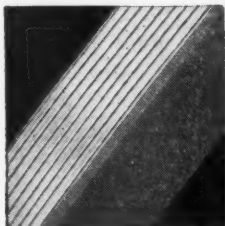
# Here's the simple, effective answer to your piston ring job problems

# American Hammered

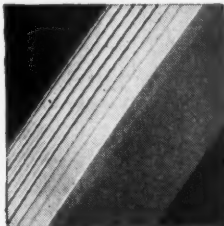
## Krome-Oil PISTON RING SETS

They're pre-seated to deliver premium performance for your customers. If you want to combat initial gas and oil waste, short ring life, sludge clogged oil rings and springs, corrosion, friction damage, scuffing and border-line lubrication, the American Hammered combination of pre-seating and Krome-Oil solves your problems perfectly. *Here's why.*

**PRE-SEATING** guarantees early break-in,  
long life and exceptional oil control



This illustration shows the Krome-faced compression ring of a Krome-Oil Ring Set before pre-seating. If installed as it is, the long-wearing qualities of Krome would prolong the break-in period.



Here the ring has been scientifically pre-seated by a precision lapping method equivalent to 300 to 500 miles of actual engine operation. This guarantees quick seating and fast oil control.

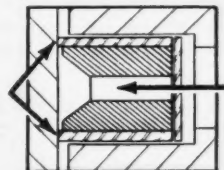
**Photographic evidence of efficient American Hammered Krome-Oil break-in**

This top groove American Hammered Krome-Oil Compression Ring is from a set which was pulled after five thousand miles of use in a heavy duty and extremely rugged fleet operation. In the enlarged photograph at right, note the smooth, even way it is wearing in. High unit pressure and narrow land contact, coupled with the long wearing qualities of Krome, impart maximum efficiency and durability to American Hammered Krome-Oil Piston Ring Sets.



**Cross-section of Krome-Oil Krome Steel Edge Oil Ring in groove**

The Krome-faced steel rails in this set extend beyond the cast iron center section giving instant oil control and long life.



Efficient oil drainage is provided by funnel shaped channel in spacer.



# American Hammered

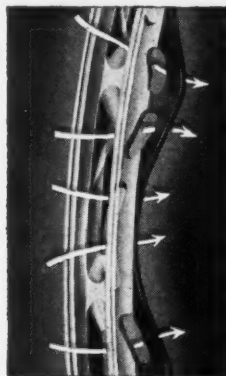
**AUTOMOTIVE REPLACEMENT DIVISION**

2001 Sanford Street, Muskegon, Michigan

Manufacturers of

American Hammered Automotive Replacement Piston Rings

Remember Profit-Packed American Hammered Power-Plus Service  
Kootherizing • GI-60 Groove Insert • Dry Film Lubricant



The free-flowing spring in the American Hammered Krome-Oil Piston Ring Set has more oil slots than any other on the market. Its unique slot design eliminates sludge clogged oil rings and springs.



tor Car Company informed readers that they were willing to sell "cars by the pound."

Officials said that the response to the ad was much better than regular type advertisements.

### New-Car Burgers

A new twist in publicizing his 1953 models was devised by Fred

Rosen, manager of the Southwest Motor Co. in Bisbee, Ariz. When the new Studebaker arrived Rosen decided that he wanted to do something really different to get the people in to see the car. He arranged to purchase several hundred pounds of buffalo meat and had the meat put in cold storage awaiting the arrival of the new Studebaker.

Early in March everything was in readiness and Rosen began a wide advertising campaign. He not only explained all about the new car but invited everyone in to have something new in the way of sandwiches. He dubbed them "Buffalo Burgers."



America's favorite floor "dry cleaner"

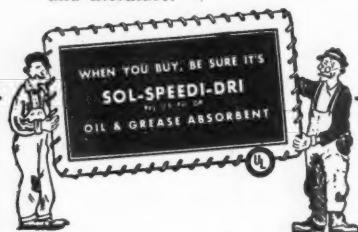
**SOL-SPEEDI-DRI®**

No idle statement, that! For America buys more Sol-Speedi-Dri than any other oil and grease absorbent. That's because pound for pound, dollar for dollar, Sol-Speedi-Dri gives more for the money, all factors considered. "Dry cleaning" with Sol-Speedi-Dri is your best way to keep floors clean and slip-proof. Send coupon today for free sample and literature.

Warehouse stocks maintained in principal cities of the United States and Canada.

Inquirers in New York, New England, and New Jersey should write to Speedi-Dri Corp. Elsewhere in U. S. to Waverly Petroleum Products Co., 1724 Chestnut St. Phila. 3, Pa. In Canada, G. H. Wood & Company Ltd., Toronto. Branches throughout Canada.

**SPEEDI-DRI CORP.**  
210 W. Washington Sq., Phila. 5, Pa.



### FREE SAMPLE:

Fill out the coupon and mail today for free sample and literature.



Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

MA-5-53

All hands were drafted to serve as cooks. The parade started at 9 a.m., and at 9 p.m. the Buffalo Burgers were still going fast and the new Studebaker was being looked over from top to bottom by more people than Rosen had dreamed of having at the grand showing.

"I never dreamed that there were so many people interested in having a taste of buffalo meat," Rosen said as he served the 1,500th Buffalo Burger.

Rosen set up a range to do the cooking right on the floor of the showrooms and kept plenty of hot coffee ready as an added inducement. By the time it was all over he had served more than 2,000 of the new burgers and everyone that came in was given a thorough look at the 1953 Studebaker.



Here's another idea that could pay off.

# It's your money!



## NOW YOU CAN KNOW THE MAKE AND GRADE OF BRAKE LINING ON THE SHOES YOU BUY

You have a right to know, when you buy exchange brake shoes, that you will get exactly the quality of lining you ordered! You *will* know when you buy Grizzly-lined shoes! For your Grizzly Distributor now clearly brands each shoe with the Grizzly name and the Grizzly grade!

This complete product identification is only one of the services you can get from your Grizzly Distributor. He brings you also the most expert workmanship and fast, dependable service. And he carries a complete stock of the *finest* brake linings on the market—Grizzly SAFTIBOND-SYNCRO or SAFTIBOND-SILVERTIP for *bonding* . . . and Grizzly SYNCRO or SILVERTIP drilled and countersunk sets for *riveting*.

Get what you pay for—buy 'em branded from your Grizzly Distributor! Grizzly Manufacturing Company, Paulding, Ohio.

Bear in Mind  . . . Ask for

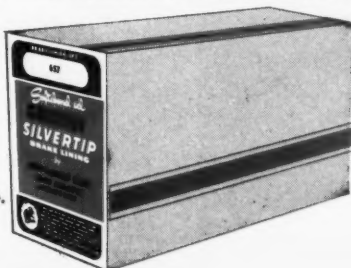
# GRIZZLY

REG. U.S. PAT. OFF.

## BRAKE LINING

**Nationally Advertised!** . . . Grizzly backs you up with "the liveliest advertising in the brake lining business," appearing regularly in *The Saturday Evening Post* and *Collier's*, and with the comprehensive Grizzly merchandising program.

Most Grizzly Distributors pack branded relined shoe sets in cartons, labeled with FMS Set No. and lining type.



**Grizzly Drilled and Countersunk Sets**  
Silvertip for deluxe or severe service . . . Syncro-Sets for standard duty. Individually boxed.



## Clearing House . . . . Continued on page 65

### This Shop Has Trouble With A Cadillac Which Vibrates

I have a 1950 Cadillac with a vibration. It is very pronounced at 35 to 40 mph. Decreases at speeds over that — increases noticeably with extra passengers. It is intermittent, sometimes very strong—sometimes lighter. Making a right hand curve, vibration increases—

left will decrease, but not altogether.

Placing the car on a jack or lift and running it at these speeds, you can't feel any vibration at all. I have replaced the rear motor mounts. Removed the rear axles and replaced both the bearings. Removed the differential carrier and inspected for broken or loose bearings. Removed the universal and

checked it. In running, have checked the driveshaft for alignment. Have removed both front wheel bearings and checked. Have balanced four wheels. Have checked the motor for loose frame, muffler, tailpipe and hanger bracket. Have changed the Hydramatic fluid and found no metal particles in the transmission.

I also have a 1952 Cadillac which coughs back in carburetor on long hills. Can make it do it sometimes by running in drive position with the accelerator wide open when hot.

I have renewed plugs and points and checked the pump pressure and vacuum. Checked the fuel line to tank. Put top oiler on it. Checked the carburetor float level and jets. They're always clean. Tested the ignition and cables. Also tested the coils, condenser, all ignition connections and the distributor cam. In remedying these things have found after condition presented itself, if I clean and regap the plugs, the condition is corrected for about 2,000 miles, then it reappears. When I clean and gap the plugs, I don't notice any carbon or oil deposits. Coughing back seems to be caused by one cylinder—just one throat of the carburetor is carboned and when it coughs, and it does it in rhythm.

I will appreciate anything you might suggest.

John Kovacs  
John's Servicecenter  
Poughkeepsie, N. Y.

**R**EGARDING the vibration problem, it could be caused by one of the rear springs shifting at the "U" bolts or a weak spring. I would carefully check these possibilities. On the 1952 Cadillac which coughs on a pull, I would suggest installing hotter spark plugs. Quite a few of the new high compression engines have been having plug trouble and it is mostly due to lead deposits from the gasoline. Trying gasoline with low lead content works well.

Precision Built



**GABRIEL**

**SHOCK  
ABSORBERS**

An Eye for Business . . .

She: "I'm returning your ring—since I've fallen in love with someone else I can't marry you."

He: "Who is he?"

She: "Promise you won't shoot him?"

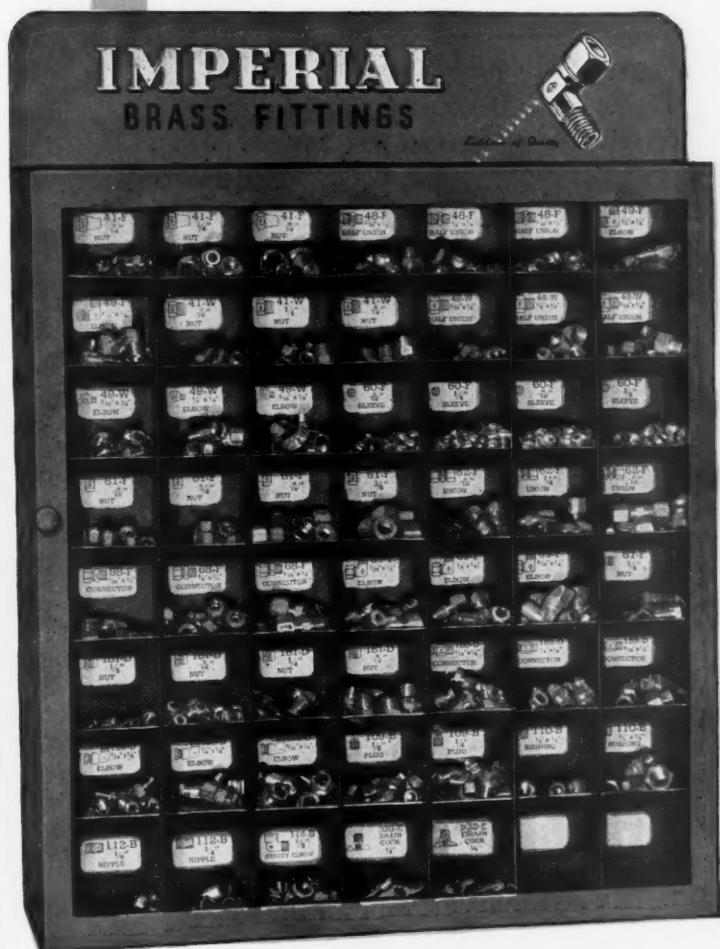
He: "Shoot him? I want to sell him a ring!"



# NOW

## Find Fittings Faster

# the IMPERIAL PANORAMIC Way . . .



**Here's the modern way to stock brass fittings!**

- Every item is in plain view through the Glass Door of this sturdy steel cabinet.
- You find fittings in a flash . . . check stock at a glance.
- Large clear labels printed on metal show big picture of part—catalog number.
- Takes no shelf or bench space . . . hangs on wall or end of bin.
- Saves you time and money . . . eliminates costly pickups and delays.
- Contains 224 fast moving fittings.

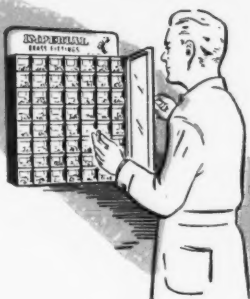
**No. 440-F** — Imperial Panoramic Brass Fitting Stock, complete with 224 parts.  
Dealer's Cost ..... **\$23.65**

**Ask for Catalog No. 124**

**Cabinet is included**

**FREE**  
of extra  
charge to  
dealer

... you get the complete unit at LESS than the cost of the fittings alone.



**THE IMPERIAL BRASS MFG. CO.**  
1217 W. Harrison St., Chicago 7, Ill.  
In Canada: 334 Lauder Ave., Toronto, Ontario

# IMPERIAL

THE IMPERIAL BRASS MFG. CO.  
1217 W. Harrison St., Chicago 7, Ill.

**YES,** I would like to have an Imperial Distributor give me full information on the new No. 440-F Panoramic Brass Fitting Stock.

Firm Name \_\_\_\_\_  
Individual \_\_\_\_\_  
Street Address \_\_\_\_\_  
City & State \_\_\_\_\_  
My Distributor is \_\_\_\_\_

# Why Pedrick

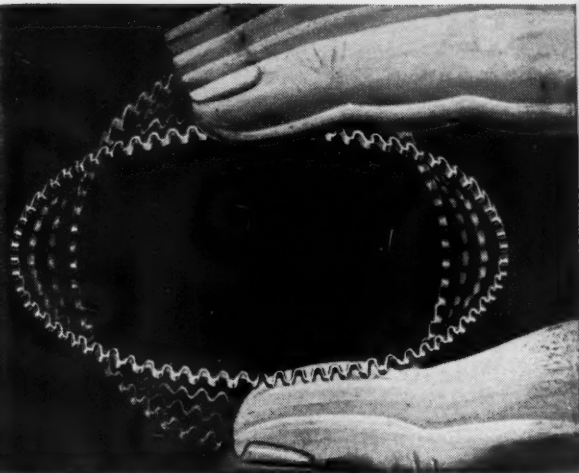
## ***FORMFLEX*** Chrome

### Piston Ring Sets are

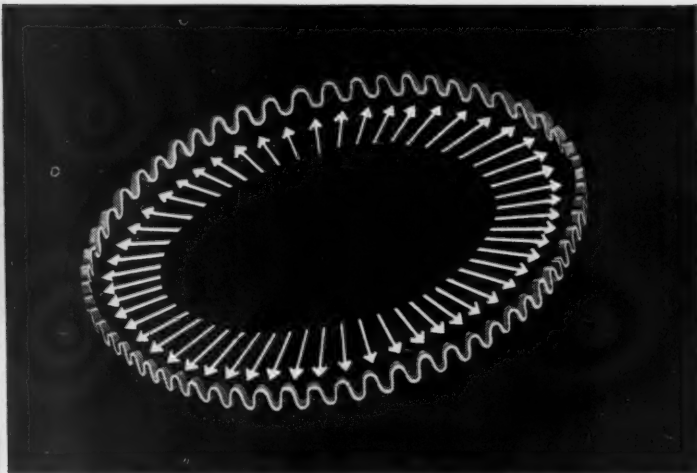
### "Unbelievably Better"



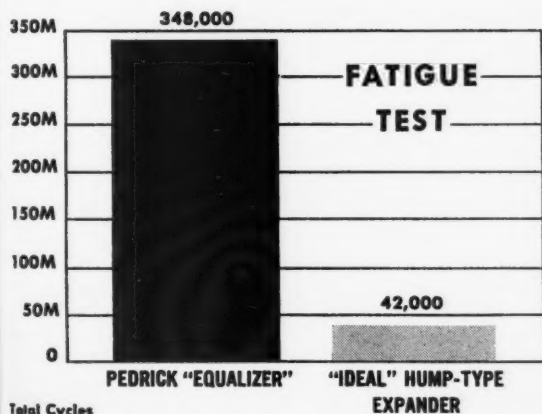
They make  
every mechanic  
a "RINGMASTER"



Look first at the Pedrick "Equalizer" . . . the most outstanding development in expander design, operation, performance and life. Note how the "Equalizer" can conform to any cylinder condition of taper or out-of-roundness—contacting the ring rails all the way around, not just at 7 or 8 humps.



Because of the "Equalizer," Pedrick FORMFLEX delivers the softest, most uniform and positive tension at every point around the cylinder wall—assuring a perfect seal, greater oil drainage and far longer life.



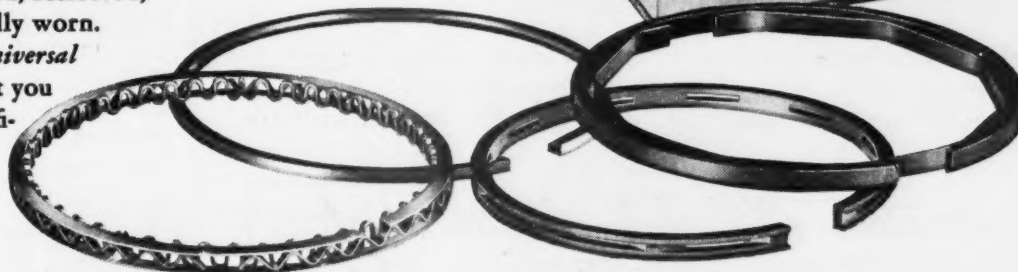
**As For Endurance**—An engineering test shows that a Pedrick FORMFLEX "Equalizer" can be deflected continuously through a .060" change in diameter 15.8 times more often than any hump type expander before metal fatigue occurs.

Getting the *right* Engineered Set for any job is now simple as ABC. Get a Pedrick FORMFLEX Chrome Piston Ring Set. It is guaranteed to outperform and outlast any other set in *any* engine—whether new, rebored, resleeved, slightly worn or badly worn. It's the first really *universal* "package"—one that you can install with confidence and profit!

### SHOP FOREMAN COULDN'T BELIEVE IT!

"We recently installed a Pedrick C8 FORMFLEX set in a Plymouth cab with 90,000 miles on it. Cylinder taper was from .021 to .026, and out-of-round up to .006. After another 89,000 miles service, less than 2 qts. of oil were added between changes, which varied from 1800 to 2200 miles. Our shop foreman said, 'I didn't believe it until I checked the records.'"

There's a  
**"NEW ENGINE"**  
in every bar



**WILKENING MANUFACTURING CO., PHILADELPHIA 42, PA.**

In Canada: Wilkening Manufacturing Co. (Canada) Ltd., Toronto



## Packard Earnings Tripled With Production Changes

Packard Motor Car Company sales and net earnings for the first quarter of 1953 were approximately three times those for the same period in 1952.

Last fall, James J. Nance, president, announced the new Packard program to return Packard to the fine car field and establish the new Packard Clipper in the medium-

priced field. This quarter is the first complete period during which the company's two lines of cars under the new Packard management were being produced. Car sales at retail for March were the highest to date for the year, with April expected to exceed this rate.

A principal aspect of Packard's program has been expansion of its dealer force. More than 300 dealers have been added since November, and new ones are being enlisted at

the rate of approximately 50 a month.

## Delco Devises Auto Radio With Signal Seeking Tuner

Delco Radio Division of General Motors has combined their signal-seeking tuner with push-button tuning to create an entirely new automobile radio. It is known as the Delco "Favorite Station" signal-seeking radio.

A touch of the station selector bar and the tuner automatically travels across the dial until it encounters a station signal. There it stops. Another touch of the finger and the tuner moves on to the next station, and so on across the band.

By means of five easily adjusted sliding red tabs, the car owner's favorite stations can be quickly and easily pinned down for push-button operation after they have been selected by means of the automatic tuner.

Delco's "Signal Seeking" radio is available on 1953 Cadillac and Packard automobiles.

## Exhibit Scheduled to Tour 19 Cities; Opens in Dayton

General Motors has revived its "Parade of Progress" traveling exhibition originally started in 1936 and suspended at the start of World War II. The research and engineering educational show has been completely revamped with new equipment, exhibits and stage presentations.

It travels in a caravan of 44 vehicles, many of them specially constructed. The nation-wide tour started in Detroit April 14 and will be on the road indefinitely.

The show will open officially in Dayton, Ohio, on May 12. It will leave Dayton May 25 on a tour through 19 cities in Ohio, Indiana, Michigan, Pennsylvania, Delaware and Maryland this year. A tour of southern states will follow early next year.



What QUALITY in a Solder Means to YOU . . .

Quality is a metallurgist selecting metals to be melted and balanced to meet the precise chemical contents specified for Gardiner Brand Solders.

Quality is a chemist carefully testing samples until these precise specifications are attained.

Quality is large sums of money invested in laboratories, research, storage, raw materials and distribution depots, so that Federated Gardiner Brand Solder users can be assured of specification products, uniform, every time.

Quality is the number and character of qualified Federated distributors who maintain stocks of Gardiner Brand Solder for your convenience.

Quality is the effort to achieve perfection . . . and the resources to apply that effort from the depths of the mine to the shipping-case which brings Gardiner Brand Solder to you from Federated, "Headquarters for Non-ferrous Metals."

**Federated Metals Division**

AMERICAN SMELTING AND REFINING COMPANY  
120 BROADWAY, NEW YORK 5, N. Y.



Aluminum and Magnesium, Babbitts, Brasses and Bronzes, Anodes, Die Casting Metals, Lead and Lead Products, Solders, Type Metals

Proof Positive . . .

A draftee claimed exemption on the grounds of poor eyesight. To prove his point he brought his wife along with him.

Cash in on this big summer promotion by America's fastest selling additive oil.

COLOR PAGES IN

# LIFE MAGAZINE!

Advertisement appearing  
in LIFE issue  
on sale May 15

Just one quart makes  
your car run better\*



\*That's because BARDAHL releases sludge and carbon, penetrates gums and varnishes on valve guides and rings. Frees up your engine—actually lets it breathe again. You'll feel new pep and power right away! Here's how the BARDAHL cost: Turn up work. Add one quart of BARDAHL to the crankcase. Feed one pint of BARDAHL through the carburetor intake. And pour a 4-ounce can of BARDAHL TOP OIL in the gas tank. Your favorite gas station or garage can do the job in a minute. Then, keep adding BARDAHL with every 1,000 miles of change. Costs so little, but what a difference! Get BARDAHL today and listen to 'er hum.

BARDAHL: SEATTLE • ST. LOUIS  
BOSTON • VANCOUVER  
MONTREAL • MEXICO CITY  
OSLO • ANTWERP • FLORENCE

PLUS

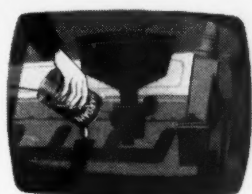


The Most Talked About

## TV and Radio SPOTS

In the Country!

Now running in more  
than 50 of the nation's  
largest cities



Will make **BARDAHL** sales  
jump FOR YOU!



**BARDAHL:**  
SEATTLE • ST. LOUIS  
BOSTON • VANCOUVER  
MONTREAL • MEXICO CITY  
OSLO • ANTWERP • FLORENCE

more people ride on..

➡ PERFECT ➡

WHEEL WEIGHTS  
than ANY other



"C" Type

(Design Pat. Applied For)

Made for all cars with K and L type rims. All passenger cars manufactured since 1949 have either K or L type rims. Made in the following sizes: 1/4- 1/2- 3/4- 1- 1 1/4- 1 1/2- 1 3/4- 2- 2 1/2- 3- 3 1/2- 4-ounce.

CROSS  
SECTION



"U" Type

Fits all passenger cars made before 1949 which had either E or F type rims. Still gives satisfaction on most cars manufactured up to present time. Made in the following sizes: 1/2- 1- 1 1/2- 2- 2 1/2- 3- 3 1/2- 4- 4 1/2- 5- 5 1/2- 6-ounce.



"Special" Type

Made for all late model Cadillacs equipped with large chrome hub caps covering the entire wheel. Made in the following sizes: 1/2- 1- 1 1/2- 2- 2 1/2- 3-ounce.



- BUSINESS "GETTER"
- BUSINESS "BUILDER"
- BUSINESS "HOLDER"

The name "PERFECT" means America's Favorite Wheel Weight. It also means Customer Satisfaction. "PERFECT's" are designed right and are made right. "PERFECT's" are streamlined—attractive in appearance and are Precision manufactured to fit any car. EVERY PERFECT weight is Guaranteed to be within 1/64 of an ounce correct. Be sure with PERFECT.

PERFECT's basic principle of 3-point suspension on the rim assures a tight fit that "stays put."



**PERFECT EQUIPMENT CORP.**

804 W. Morgan St. KOKOMO, IND. P.O. Box 706

Manufacturers of Wheel Weights for Trucks and Passenger Cars

## 'Look' Magazine Features May Safety Check Article

Approximately 18,000 car dealers throughout the nation will use a *Look* point-of-sale poster tying-in with the automotive industry's May safety check program, sponsored annually by the Inter-Industry Highway Safety Committee and the National Safety Council.

The posters are built around a vehicle maintenance article for the May 5 issue. Written by George Koether, *Look's* Automotive Editor, and entitled "Don't Drive a Death Trap," the article tells readers about 10 vital automotive parts which should be checked to prevent needless highway accidents.

## 500,000 Expected to Visit Ford Rotunda in Dearborn

The Ford Motor Company expects to play host to three-quarters of a million people in its 50th anniversary year.

More than 250,000 visitors will tour the Rouge plant at Dearborn, or one of the 18 branch assembly plants in 1953. An additional 500,000 will see the Ford Rotunda at Dearborn. The Rotunda, closed in World War II, will be reopened in June as one of the auto industry's top tourist attractions.

In the new Rotunda, the manufacturing skills which go into the modern automobile will be portrayed in three-dimensional animated exhibits. Other displays will show how motor vehicles have contributed to American progress over the past half-century, and how they may fit into the city of the future.

It was also announced that a picture story of the automobile industry, *Ford at Fifty*, was published last month by Simon and Schuster, as part of the Ford Company's fiftieth anniversary observance.

### Figures on Words . . .

It is said that Lincoln's Gettysburg Address contained 266 words; the Ten Commandments contain 297 words; the Declaration of Independence contains 300 words, and the OPS Order to reduce the price of cabbage contains 26,911 words.



# NOW! AT YOUR JOBBER



Enjoy all the advantages of bonded brake shoe exchange and offer your customers first quality, nationally known American Brakeblok Brake Lining.

Deliver jobs faster, cut labor costs, step up your brake service volume; and—at the same time—give your customers the long life, instant response and easy pedal action for which American Brakeblok is famous.

Your local N. A. P. A. Jobber has brake shoes bonded with American Brakeblok Brake Lining, in all popular sizes, boxed and ready to go. Call him today!

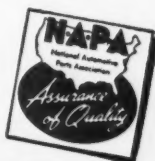
**Protect your reputation...**

**INSTALL**

**American**  
REG. U.S. PAT. OFF.  
**Brakeblok**

**THE SAFETY BRAKE LINING**

Copyright 1953, American Brake Shoe Co.



**Brake Shoe**

**AMERICAN BRAKEBLOK DIVISION**

DETROIT 9, MICHIGAN

Plants in:

Detroit, Michigan; Winchester, Virginia; Hillburn, New York; Lindsay, Ontario; Gif, France

## Industry Relations Group To Convene in Washington

The first meeting of National Automobile Dealers Association's Industry Relations Committee has been called for May 11 and 12 in Washington by chairman Frederick M. Sutter, it was announced by NADA Executive Vice-President Frederick J. Bell.

In the two meetings, it is expected that the committee will review the Statement of Policy under which this committee has been operating and give consideration to any necessary changes in line with the committee's program for the year, as announced at the Association's recent convention in San Francisco.

Reports will be made on the progress toward formation of State Industry Relations Committees, as well as a review of various manufacturer's dealer-factory council activities. Current problems of dealer-factory relations will also be included in the agenda.

## Dodge Offers Coronet Six As Addition to 1953 Line

The Dodge Division of Chrysler Corporation has announced a new Coronet Six model as an addition to its 1953 line. Volume shipments are now being made to dealers.

R. C. Somerville, vice-president in charge of sales, said the Coronet Six will have all of the same features as the Coronet Eight—including such items as chrome trim, upholstery, foam rubber seats and super-cushion tires as standard equipment.

The basic difference between the two models will be in the engine. Factory retail prices at Detroit on the Six will be \$1,933 for the Club Coupe and \$1,958 for the four-door sedan.

## Mechanics Best Authority On Maintenance Products

Mechanics who serve motorists in the nation's 340,000 garages and service stations are the best authority on what kind of maintenance products are needed—and how to use and apply them most efficiently in doing the best job for the customer.

That's the conclusion reached by the Permatex Company, in the early stages of a "service suggestion campaign." More than 3,000 replies have been received to date.

When all the results of the suggestion contest have been received and analyzed, the Permatex Company will publish them in booklet form as a service to the automotive maintenance industry.

## Nat'l Committee Awards 'Traffic Safety' Citations

Six individuals and six organizations have been named recipients of the National Committee for Traffic Safety's annual citation  
(Continued on page 148)

HERE'S A "COMBINATION" THAT *Pays Off...*



**HYPRESSURE JENNY COMBINATION**  
STEAM CLEANER AND COOLING SYSTEM FLUSER

**MORE BUSINESS  
GREATER PROFITS**

New Service Master "Combination" Hypressure JENNY.

need and want. It will also earn you an average of \$9.50 per job (including replacement parts) cleaning complete cooling systems—radiator, motor block and heater,—right on the car.

This two-in-one money maker is available in two models—the new Service Master shown, and Model "JO" Combination. Write today for "1001 WAYS TO EXTRA PROFITS WITH Hypressure JENNY STEAM CLEANER." No obligation. You'll be glad you did!



Business will increase and profits go up the very first day you put Hypressure JENNY Combination—the world's only two-in-one Steam Cleaner and Cooling System Back-Flusher—to work in your service station, shop or garage.

Combination JENNY will bring you scores of new customers, and \$4 or \$5 for a few minutes work, cleaning dirty motors, chassis, differentials, transmissions, white sidewalls . . . preparing for undercoating . . . "steam-greasing" . . . and many other services customers

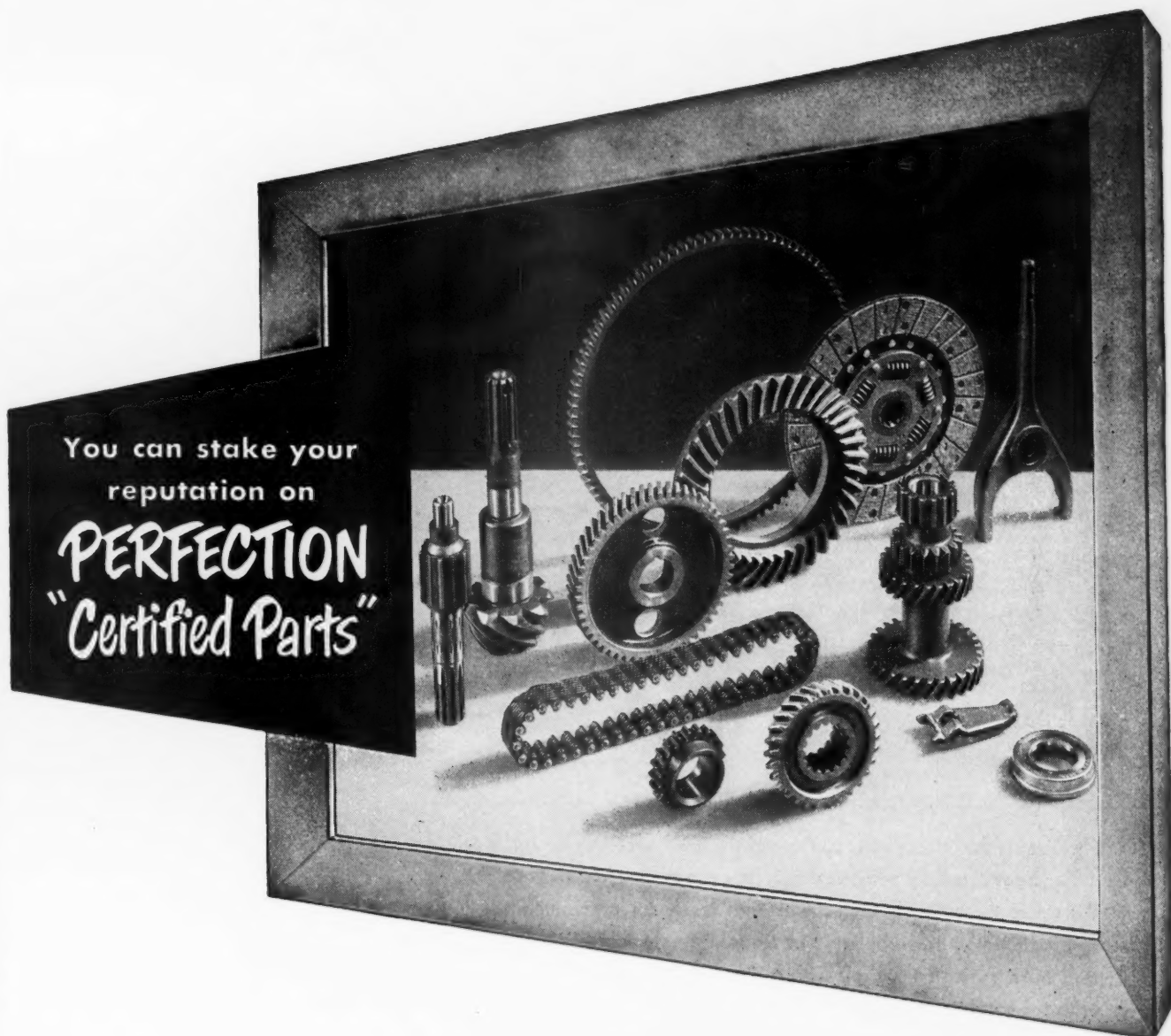
See the YELLOW PAGES of your TELEPHONE BOOK for local jobber.

**HYPRESSURE JENNY DIVISION**  
**HOMESTEAD VALVE MANUFACTURING COMPANY**

P. O. BOX #95

"Serving Since 1892"

CORAOPOLIS, PA.



You'll find it good business to install PERFECTION Certified Replacement Parts. The low installation cost wins the favor of your customers, and the dependable performance of these products makes your customers real boosters for you.

Behind the parts constituting this great line are over 30 years of PERFECTION manufacturing achievement. This important "know-how", the use of the finest materials, heat treating under scientific control, precision accuracy and rigid inspections throughout production—all contribute to furthering the fine reputation accorded PERFECTION products.

There is a PERFECTION jobber near you. He carries a representative stock of these quality parts and is prepared to render prompt, efficient, friendly service. If you do not know his name, write us.



## *Perfection Gear Company Harvey, Illinois*

**PERFECTION PRODUCTS INCLUDE:** Silent Timing Gears, Metal Timing Gears, Silent Timing Chains, Sprocket Gears, Transmission Gears and Parts, Differential Ring Gears and Pinions, Differential Cases and Parts, Fly Wheel Gears, Clutch Plates, Pressure Plates, Clutch Cover Assembly Parts, Clutch Forks and Parts, Clutch Throwout Bearings, Clutch Rebuilders.



## Safety Awards . . . . . Continued from Page 146

award for outstanding contribution to highway safety during 1952.

The U. S. Junior Chamber of Commerce and the Inter-Industry Highway Safety Committee won awards for nationally-sponsored traffic programs. Honored for state or local highway safety activities were the Atlantic Refining Co., Phila.; Anthracite Motor Club,

Hazleton, Pa.; Brandenburg, Ky., Young Woman's Business Club, and the Los Angeles Area Council of the Camp Fire Girls.

Individual winning awards went to Robert I. Catlin, vice-president, Aetna Casualty and Surety Co., Hartford; Owen F. McDonnell, Philadelphia Inquirer; Mrs. Thomas V. Anderton, Roanoke, Va.; Dr.

George W. Walter (posthumous), Racine, Wis.; Robert S. Anderson, St. Paul, Minn.; and Lester A. Olson, Great Falls, Mont.

### NADA Names 18 to Serve On 'Relations' Committee

In a joint statement issued from Washington, National Automobile Dealers Association President Robert S. Armacost and Industry Relations Committee Chairman Fred M. Sutter announced the personnel of N.A.D.A.'s Industry Relations Committee. Members of the 1953 committee are: Fred M. Sutter, chairman, Dodge, Columbus, Ind.; Hix H. Green, Buick, Atlanta, Ga.; H. E. Warren, Cadillac, Minneapolis, Minn.; J. J. Verschoor, Chevrolet, Mitchell, S. D.; Burch Greene, Chrysler, Los Angeles, Calif.; George Ranes, De Soto, Dallas, Tex.; Burkett Williams, Ford, Cleveland, Ohio; J. H. Cavanaugh, Hudson, Manchester, N. H.; C. R. Waltz, Kaiser, Baltimore, Md.; Lee Moran, Lincoln-Mercury, Seattle, Wash.; William James, Nash, San Francisco, Calif.; Floyd Randolph, Oldsmobile, Lincoln, Nebr.; R. C. Quinlevan, Packard, Milwaukee, Wis.; Ralph Perry, Pontiac, Kansas City, Mo.; B. C. Hawn, Studebaker, Waterloo, Iowa; Roy Bridges, Willys, Birmingham, Ala.; David P. Whelchel, Nashville, Tenn., ATAM; and D. C. Barnhart, N.A.D.A. staff member.

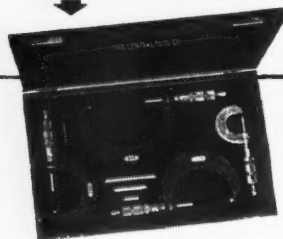


# PARTNERS IN AUTO REPAIR WORK!



Smart motor mechanics insist on Central Certified Accuracy Micrometers . . . the largest selling micrometers in the automotive field. Equipped with a set of these "mikes", mechanics are ready for precision work in repair, replacement, or rebuilding of modern high compression engines. Central Mike says: "Fit it right with a Central Mikel" See your jobber or write for catalog.

Set no. 745 RL. Outside Micrometers. Range: 0 to 4". Four micrometers with ratchet stops and locknuts; also standard test gauges; in deluxe plush-lined case.



Set no. 808. Inside Micrometer. Range: 1½" to 8". Complete with extension handle — in deluxe plush-lined case.

**THE CENTRAL TOOL COMPANY**  
462 WELLINGTON AVENUE  
CRANSTON 10, R. I., U.S.A.

There's a Central Micrometer for Every Automotive Use

**CENTRAL**  
Certified  
Accuracy  
**MICROMETERS**



"Now with your permission our Ambassador of Good Will, has a brake reline to do."

# New Improved U.S.I. Permanent WORLD'S SAFEST ANTI-FREEZE



## Goes to Town-Your Town!



with the **HOTTEST** national  
**ad campaign**

in the longest list of magazines you ever laid eyes on! Big-space ads tell the story of *new improved* U.S.I. PERMANENT to an audience of 82,000,000 readers!

**PLUS**  
**The heaviest local ad campaign**  
ever unloosed at your customers!

### TV? and how!

An intensive campaign running day after day, sells U.S.I. early in Fall!

### BILLBOARDS? sure thing!

Selling U.S.I. Anti-Freeze day after day, *and* all day long!

### RADIO? you bet!

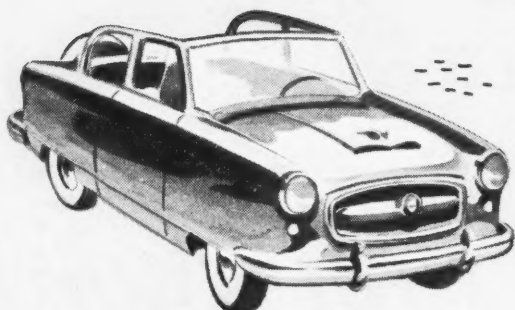
Radio, like billboards, reaches the car-owner while he's in his car!

**PLUS**  
*The Sensational*

## \$50,000 PRIZE CONTEST

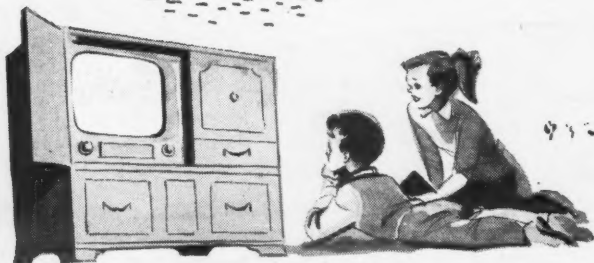
for U.S.I. PERMANENT dealers!...

# Get into this Contest for U.S.I.



Not open to the general public—open only to U.S.I.

77 PRIZES IN ALL—



## GRANDP

TRIP TO EUROPE

10 First Prizes

22 Second Prizes

44 Third Prizes

**Here's All You Do—And You're in the Contest!**

Finish the following sentence in 25 words or less: "Mr. Motorist, Get U.S.I. PERMANENT Anti-Freeze, and get it early because . . ."

That's right! By writing 25 words or less, and following the contest rules, you may win one of these sensational prizes. You just write what you think are the best reasons to give car owners for buying U.S.I. PERMANENT Anti-Freeze and for buying it early in Fall. Here's how we help you:





# \$50,000 Prize

# Permanent DEALERS!

to U.S.I. dealers and their employees

LOOK WHAT THEY ARE!

## PRIZE

FOR TWO!

10 Nash Ramblers completely equipped!

22 RCA TV's De Luxe TV-Radio-Phono Consoles!

\$100 Each!



### Contest Book Gives Valuable Tips on How to Win!

All U.S.I. dealers will receive the "U.S.I. PERMANENT Anti-Freeze Contest Book". It gives valuable information that can help you win a Contest Prize. It gives full contest rules, and includes postpaid Contest Entry Blank. Contest closes August 31, 1953. If you have not received your copy of the Contest Book by May 31, ask your jobber for it.

Not 1 but 2 good reasons why you should enter this contest!

When you get into the U.S.I. PERMANENT Contest, you give yourself a chance to carry off one of these terrific prizes! You also get acquainted with the greatest sales-story behind any anti-freeze! ... a sales-story that can boost anti-freeze sales 40%.

Get Both- Get the fun and excitement of a prize contest and help yourself get ahead in business! Get into the U.S.I. PERMANENT ANTI-FREEZE PRIZE CONTEST!

# You can make More Money in Anti-Freeze

WITH NEW IMPROVED U.S.I. PERMANENT  
because only U.S.I. gives you all these big selling-advantages

1.

**You sell the World's Safest Anti-Freeze!**

U.S.I. contains *more ethylene glycol* — acknowledged the world's best anti-freeze agent. U.S.I. contains Special Inhibitors, a top trade secret — protects *all 7* metals in cooling system; stops rust, corrosion, foaming, clogging.

2.

**You recapture lost Customers Who "Re-use"!**

About 40% of car owners re-use last year's anti-freeze. U.S.I. advertising features the U. S. Government warning against re-using anti-freeze — helps you recapture this lost 40% of your market.

3.

**You get the jump on the Early Fall Market!**

To help you make the sale *before your competitor does*, U.S.I. advertising tells car owners to get U.S.I. right after Labor Day! U.S.I. also gives you the date of the first freezing weather in your area, to make your customers want anti-freeze *early!*

4.

**Hard-hitting Ads wherever you look or listen!**

Wherever car-owners turn, they'll learn the great story of new, improved U.S.I. PERMANENT, the world's safest anti-freeze — in magazines, on billboards, TV and radio! You get the most powerful advertising support you've ever had!

5.

**"10 Tested Ways to Sell More Anti-Freeze!"**

To help you make *extra* sales of anti-freeze and other automotive products, U.S.I. supplies you with this new, *free* booklet. Quick and easy to read, it gives facts on the danger of re-using last year's anti-freeze, dates on the first freezing weather in your area, and other valuable, sales-making tips. Ask your jobber's salesman for it!

You Can  
Rely  
on U.S.I.



U. S. INDUSTRIAL CHEMICALS COMPANY

Division of National Distillers Products Corporation

## Bendix Products Releases Brake Program for 1953

The 1953 Bendix Brake Program has been released by Bendix Products. The program includes factory new-lined brake shoes, lining segments, repair kits, service parts and starter stocks tailored to vehicle manufacturers specifications with a wide range of application in the current and late automotive models.

Repair kits were added, containing cups, pins and hold-down springs, small parts that are usually replaced with every brake job. Another element of the Bendix program consists of service repair parts such as backing plates, etc., parts that were not formerly available in this manner.

Bendix also revealed their new simplified Brake Catalog. This catalog provides complete parts identification as well as vehicle application information.

## Ford 'Six' Wins Honors In Mobilgas Economy Run

Top honors in the 1953 Mobilgas Economy Run went to a six-cylinder Ford Mainline four-door sedan which captured the coveted sweepstakes trophy by posting a ton-miles-per-gallon average of 56.7028. The winner's actual over-the-road mileage was 27.0335 miles-per-gallon.

Rounding out the top five were a Dodge V-8, Mercury Monterey, Lincoln Capri, and Nash Ambassador.

Les Viland of Detroit drove the sweepstakes winner for his second Economy Run triumph. He was at the wheel of the winning Lincoln in 1951.

Their average for the three-day, 1,200 mile trek between Los Angeles and Sun Valley was 22.2869 miles-per-gallon, topped only by 1951's average of 23.92 over a shorter, less-trying route. The average speed this year was 44.71 miles-per-hour, as opposed to 1951's average of 40.60.

## Fram Presents Swayzes On Vacationland America

A new travel promotion, designed to lure automobile vacationers to the highways, and give automotive accessory sales a sharp push during the 1953 tourist season, was

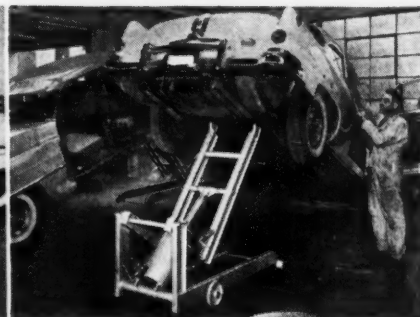
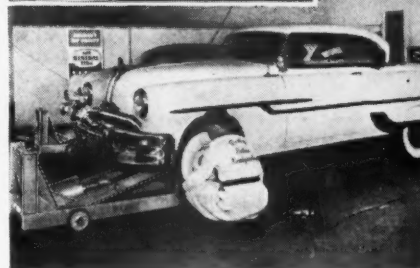
launched by the Fram Corporation.

Featuring a travel theme, the program "Sightseeing With the Swayzes Through Vacationland America" will be viewed in 50 cities on a coast-to-coast network.

Dealers will distribute a series of travel books, covering all of the vacation areas throughout the United States and parts of Canada, visited on TV by the Swayzes. Outlining complete vacation tours by

car, the books elaborate on attractions and points of interest, give travel hints and stress importance of automotive servicing before beginning a vacation trip.

By selling travel, Fram officials point out, both wholesalers and dealers share in the increased sale of gas, oil, filters, lubrication jobs, tires, batteries and accessories, as well as other automotive services and products.

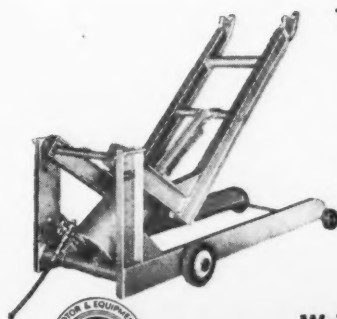


## The LEE END LIFT keeps service work moving

Tim Mennen says: "In keeping with our policy of using only top quality, name brand equipment, we selected the Lee End Lift for use in our tire and body and fender departments. The Lee End Lift cuts tire changing time in half — speeds body and fender work by permitting men to work in a comfortable standing position."



Tim G. Mennen, Vice President and General Manager of Masters Pontiac Co., Inc., Long Beach, California.



The Lee End Lift helps speed completion of all types of undercar work at low labor costs. Works anywhere air pressure is available — indoors or out. Lifts either end of car to 53". 3,000 lb. capacity. Patented automatic safety latch. Stores in 2 ft. sq.

Write for Bulletin 201



# AUTOMOTIVE EQUIPMENT MFG. CO.

11000 SO. ALAMEDA STREET, LYNWOOD, CALIFORNIA



metal saw with handle turned rong way; Handle on air pump doesn't make sense. Maybe this fellow got in this picture, but some one will have to lead him out. He looks like one of Uncle Sam's six week mechanics. My hand. *SeBe T. Word, SeBe T. Word Radiator and Repair Shop, Elk City, Okla.*

The staff has come up with some additional mistakes that SeBe overlooked. April 1 was not Monday, but Wednesday; bucket has only half of handle; right hand has six fingers; title of book is on back cover; front end of tie is plain, while back of tie has dots; hose line to torch goes nowhere; hose line to torch is single—should be double; plug-in wire on electric drill to short; there is no thread for adjustment on monkey wrench.

Since SeBe missed so many we're sending him, via the young man on the cover, complete information on enrollment in Mother Perkins home-study correspondence course for private eyes.—Ed.

### Roy's Wife Understands

Editor, MOTOR AGE:

I have been a reader of MOTOR AGE for the past 28 years. I am still getting a lot of good out of this great magazine. I have copies of MOTOR AGE that are 15 and 18 years old and my wife had better not be caught burning them or I will trade her in for a new model. I must admit, though, she is very good about such things as she has lived with me as long as MOTOR AGE has and sort of respects MOTOR AGE and myself.

This may be nonsense to you, but after repairing cars, trucks and tractors for 30 years you know you must have gotten a lot of information somewhere, and I am certain where I got a lot of mine. *Roy J. Cross, McConnell, Ill.*

### How To Treat A Stranger

Editor, MOTOR AGE:

Your editorial on "How To Treat A Stranger" in the August, 1952, issue impressed me so much that I had copies made and gave each employee a copy, retaining the original for myself.

One of the copies fell into the hands of the managing editor of the *Savannah Morning News*. He immediately called me, stating that he liked the editorial and would like to publish it in his paper. Since I liked the idea, I told him I felt that it would be alright to use it as he sees fit.

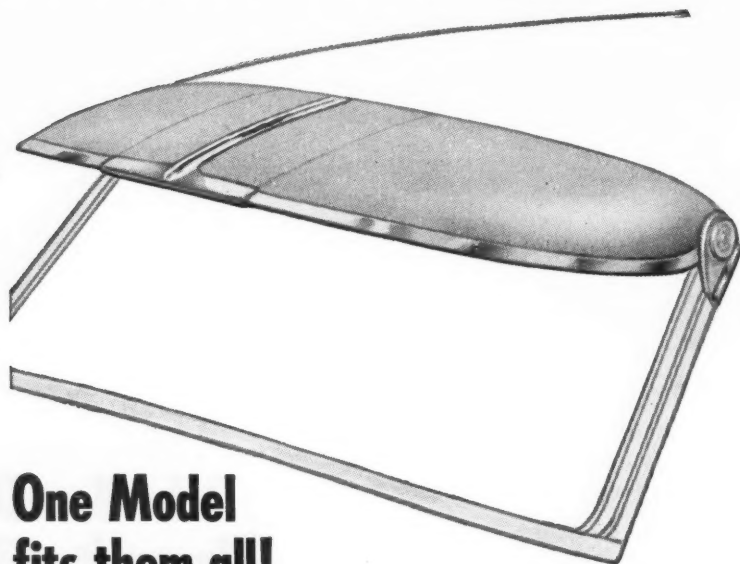
We hope to see more good editorials from time to time as we are constant subscribers to your excellent trade publication. *R. W. Tarratus, Tarratus Oldsmobile Co., Savannah, Ga.*

Thanks, Mr. Tarratus. With the prediction that an estimated 66 million vacationers will travel by auto this year, now's a good time to remind all of your trade that thorough and courteous service can bring return business and word-of-mouth recommendations.—Ed.

True Words . . .

Be kind to your friends. If it weren't for them you would be a total stranger.

## Your Easiest EXTRA PROFIT FULTON SUN SHIELD



One Model  
fits them all!

#### GENERAL MOTORS

Chevrolet  
Buick  
Oldsmobile  
Pontiac  
Cadillac

#### FORD

Ford  
Mercury  
Lincoln

#### CHRYSLER

Plymouth  
Chrysler  
DeSoto  
Dodge

#### PACKARD

The most popular accessory, the one with the greatest acceptance, is now easier than ever to sell. One model Fulton Sun Shield — the No. 1022 — fits all the 1953 cars listed at left as well as many earlier models.

The Fulton is the one permanently graceful and handsome Sun Shield. It's built of lasting aluminum with stainless steel trim and brackets...fully adjustable to suit all drivers.

Don't miss this welcome extra profit! Sell the Fulton Sun Shield with every new car. And don't overlook the *plus* market of car owners who come into your service department. "Ask them to buy".

No. 36 DE LUXE TRAFFIC LIGHT  
FINDER — Brings those overhead  
traffic lights into easy view. A  
brilliant, quality accessory.



## THE FULTON COMPANY

1912 SOUTH 82ND STREET

MILWAUKEE 14, WISCONSIN

## Dents Pay Rent . . . . Continued from Page 114

Promotion of the campaign will commence with the announcement of a National "Dents Out" Queen who will be sent to refinishing school, to call public attention to the skill involved in refinishing a car professionally and to remind the public that dents and scratches should be removed to restore the original beauty of the car. In June, radio and television appearances of the queen will dramatize the "Dents Out" program. Newspaper and news magazines throughout the country will be provided with information and pictures on the campaign. Meanwhile, body shops will be provided with free six-foot posters and window streamers as a further public reminder that June is "Get the Dents Out" month. Shops will be equipped with business-getter postcards which will enable dealers and independent shops to contact their own customers directly, with "Dents Out" reminders. Also being supplied free of charge are estimate tags which can be hooked inside the car to call the customer's attention to the existing damage on the car and an estimate for repairs. A wall chart is supplied which shows the customer the steps necessary to refinish a scratch or dent professionally. In addition, the shops will be provided with free campaign "curiosity" buttons and with ready-to-use radio strips and newspaper advertising mats.

With all this material supplied gratis, shop operators are off to a good start in reaping new profits from body work. This material, "made to order" for body shop use, would run into considerable expense if an individual shop were to go out and order it. Its effectiveness has been proved by the many independents and dealers who have made substantial increases in their total volume. Naturally, the postcards and other selling aids cannot do the job themselves. To put the campaign over, each man in the shop—especially the one who contacts the customer—should be on the lookout for dents and other

damage which have gone unattended. It's the little dents that add up and more than pay the rent, not only in June but every month of the year.

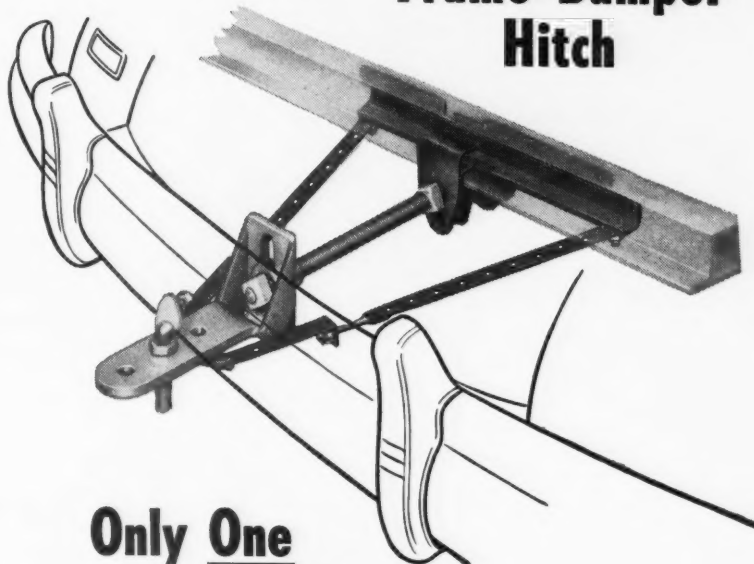
*Advertising and sales promotional material mentioned in this article can be obtained free of charge from Minnesota Mining and Manufacturing Co., St. Paul 6, Minnesota.*

## United Motors Distributes Free Carburetor Booklet

United Motors Service Division of General Motors Corporation has just completed distribution of more than 100,000 copies of a booklet entitled *Automotive Carburetion Made Easy*.

Although the booklet covers the servicing of Rochester carburetors, 10 of the 14 pages are of general nature and should be of value to garage mechanics and help improve all carburetion service.

## NEW FULTON Frame-Bumper Hitch



**Only One  
Model to Stock...  
fits most cars**

For a really secure attachment for utility and boat trailers, the Fulton No. 29 Frame-Bumper Hitch attaches directly to rear cross-member of car frame. Heavy steel frame support reinforces frame without drilling. Rear bumper supports vertical load while horizontal thrust is transferred to car frame. Tie bands give added strength.

Wide range of adjustability lets you fit the majority of cars with only one model. Get set now for this extra profit on new car sales and through your service department.

Order from your jobber today. For catalog information, write —

.....

## THE FULTON COMPANY

1912 SOUTH 82ND STREET • MILWAUKEE 14, WISCONSIN

In Canada: J. C. ADAMS CO., LTD., Toronto, Ontario

# Battery Wholesalers say...

## "PREST-O-LITE PLAN HELPS



**OMAHA**—L. E. Humphries, N.A.P.A. Omaha Warehouse, says, "Selling both jobbers and dealers with Prest-O-Lite fits our business. This big plus means faster turnover with maximum profits."



**LOS ANGELES**—M. J. Whitfield, Service Station Supply, says, "We like Prest-O-Lite's strong national advertising, the tie-up with pro football and the merchandising aids that really help us sell."

### HERE'S HOW DEALERS BENEFIT—

- **FAST SELLING PREMIUM LINE—MORE PROFIT**
- **NATIONAL AND LOCAL ADVERTISING—MAKES PREST-O-LITE EASY TO SELL**
- **NEARBY SOURCE OF SUPPLY—FAST TURNOVER**
- **ON-THE-SPOT ADJUSTMENTS—SATISFIED CUSTOMERS**

# prest-o-lite



# US SERVE DEALERS BETTER"



**BROOKLYN**—M. George Beck, Rayno Distributors, Inc., says, "We've yet to find a premium battery that moves like the Prest-O-Lite Hi-Level. This means extra profits plus extra business for our dealers"



**SAVANNAH**—W. C. Thompson, Motor Supply Company, says, "We're mighty happy with Prest-O-Lite's protected territory plan. Our customers get better service . . . we get repeat business."



PREST-O-LITE  
**believes**  
IN THE BATTERY  
WHOLESALE!

***hi-level***

**NEEDS WATER ONLY 3 TIMES A YEAR... LASTS LONGER, TOO!**  
IN NORMAL CAR USE

# Did You Get YOUR SHARE?



## Check Sales Facts Against Total Car and Truck Registrations

**R. L. Polk & Co., for years compilers of the official car registrations, now make this basic sales information available on special work sheets set up market by market, county by county, city by city, with column headings under which you can post your own sales figures, expenditures, and quotas. Compare instantly your performance figures against actual car and truck registrations. Write, wire or phone for complete information.**

**Use This  
Comprehensive  
New  
Market Analysis  
Service**

TOTAL CAR  
AND TRUCK  
REGISTRATIONS

PERCENT  
OF TOTAL

ENTER YOUR OWN  
SALES INFORMATION  
IN THESE COLUMNS

Palm Market Question Index

MARKET	MONTH	YEAR	PRICE	QUANTITY	PERCENT OF TOTAL	SALES OF OTHERS
Palm Oil	1951	1952	1953	1954	1955	1956
Palm Kernel	1951	1952	1953	1954	1955	1956
Palm Fruit	1951	1952	1953	1954	1955	1956
Palm Seed	1951	1952	1953	1954	1955	1956
Palm Leaf	1951	1952	1953	1954	1955	1956
Palm Bark	1951	1952	1953	1954	1955	1956
Palm Wood	1951	1952	1953	1954	1955	1956
Palm Husk	1951	1952	1953	1954	1955	1956
Palm Shell	1951	1952	1953	1954	1955	1956
Palm Bran	1951	1952	1953	1954	1955	1956
Palm Cake	1951	1952	1953	1954	1955	1956
Palm Meal	1951	1952	1953	1954	1955	1956
Palm Flour	1951	1952	1953	1954	1955	1956
Palm Sugar	1951	1952	1953	1954	1955	1956
Palm Syrup	1951	1952	1953	1954	1955	1956
Palm Vinegar	1951	1952	1953	1954	1955	1956
Palm Oil Cake	1951	1952	1953	1954	1955	1956
Palm Kernel Cake	1951	1952	1953	1954	1955	1956
Palm Fruit Cake	1951	1952	1953	1954	1955	1956
Palm Seed Cake	1951	1952	1953	1954	1955	1956
Palm Leaf Cake	1951	1952	1953	1954	1955	1956
Palm Bark Cake	1951	1952	1953	1954	1955	1956
Palm Wood Cake	1951	1952	1953	1954	1955	1956
Palm Husk Cake	1951	1952	1953	1954	1955	1956
Palm Shell Cake	1951	1952	1953	1954	1955	1956
Palm Bran Cake	1951	1952	1953	1954	1955	1956
Palm Cake Cake	1951	1952	1953	1954	1955	1956
Palm Meal Cake	1951	1952	1953	1954	1955	1956
Palm Flour Cake	1951	1952	1953	1954	1955	1956
Palm Sugar Cake	1951	1952	1953	1954	1955	1956
Palm Syrup Cake	1951	1952	1953	1954	1955	1956
Palm Vinegar Cake	1951	1952	1953	1954	1955	1956
Palm Oil Cake Cake	1951	1952	1953	1954	1955	1956
P						

BY STATE  
BY COUNTY  
BY CITY

FACTS FROM YOUR  
OWN BUSINESS

size of sheet — 10" x 14"

*Serving the Automotive Industry and its Dealers since 1923*

# R. L. POLK & CO.

**Motor Statistics Division**

**431 Howard Street • Detroit 31, Michigan**

**Branches:**

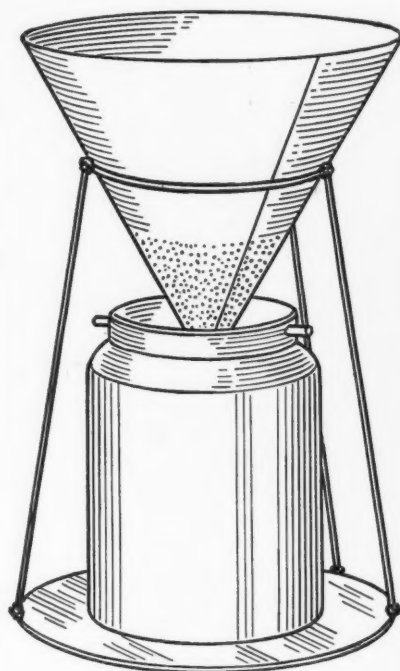
**New York • Chicago • St. Louis • Cleveland • Philadelphia • Cincinnati**

**ALSO: PLANNED DIRECT MAIL PROMOTIONS • CONSUMER RESEARCH • CITY  
DIRECTORIES • AUTOMOTIVE STATISTICS • POLK BANK DIRECTORY • MAILING LISTS  
CONTEST MANAGEMENT**

## Body Shop Tips...

Continued from Page 67

It permits the painter to see how much material he puts in the paint cup. It saves time in lifting the



strainer off the cup and is very inexpensive. Bend the 16-inch piece of rod in a circle to hold the strainer. Tack weld the other pieces of rod to the lid of the can and to the circle and there you are. *Morinus DeVos, 10 Hilton Street, Clifton, N. J.*

## Institute Offers "Guide" To Modernization

Store Modernization Institute has recently published the "Retailers Fact-Gathering Guide for Modernization," applicable to automobile, tire, battery, accessory, and gasoline dealers.

The "Guide" enables the individual retailer to evaluate the present condition of his place of business and decide what needs changing.

The Store Modernization Institute sponsors the 4th National Store Modernization, Building and Maintenance Show, June 9 through 12 at Madison Square Garden.

Tickets to the Show and copies of the "Guide" may be obtained free by writing to the Store Modernization Institute, 20 East 55th St., New York 22, N. Y.

# "THEY'RE OFF MY NECK



*at last!"*

Wow! I thought customers were tough—I've spent 14 years building the reputation of a top paint shop. But too often my men said, "Why in the blankety-blank don't we give better color match, better blend-in, better gloss?" We do—now—with Martin-Senour Hi-Solids Lacquer Colors. Now—every man in my paint shop can turn in a top job every time. And *all* my men are off my neck—because at last I've found the secret: it's factory-packaging—the Martin-Senour way for uniform results every time!

## MARTIN-SENOUR SYNTHOL ENAMELS ASSURE YOU OF UNIFORMITY IN

BEAUTY	COLOR	COVERING	DRYING
FLOW	DURABILITY	GLOSS	

Full selection of factory packaged colors—clear, clean and ready to use. Perfect for air drying, baking or hot spray application. Customer satisfaction is built right into those finishes for over-all refinishing or spot repair.

Your N.A.P.A. Jobber has  
**MARTIN-SENOUR**  
Synthol Enamels

# MARTIN-SENOUR

2520 South Quarry Street, Chicago 8, Illinois

*Factory Packaging* . . . the only positive control from Factory to Finisher





## Tight Cables Cause Wiper Slow-Down

On Pontiac cars, excessively tight windshield wiper drive cables will result in slow wiper operation at the center of the stroke. Loose cables will result in blade slap or over travel at the end of the stroke.

If either of these conditions is

noticed in wiper operation, it can be corrected by following the procedure listed below:

(1) With the engine stopped, move the wiper arms by hand to the center of the arc, midway between the two extremities of travel. With the arms in this position, motor drive lever should be in vertical position. Make sure the motor

drive lever remains in vertical position during all steps of adjustment procedure.

(2) While the arms are in this position, remove the arms and blades without altering the position of the transmission shaft.

(3) Loosen the screw at the end of the wiper transmission shaft approximately  $\frac{3}{4}$  turn. Tap the end of transmission shaft lightly to insure full tension.

(4) Reach up under the cowl and take the cables between the thumb and forefinger to produce a slack. Increase the finger tension until serrations in wiper transmission move one notch which can be felt and/or heard. A minimum of slack should result and careful check should be made to see that cables are not exceedingly loose. While holding the cables in this position, retighten the tension screw in the shaft end. Repeat these operations on other wiper transmission shaft.

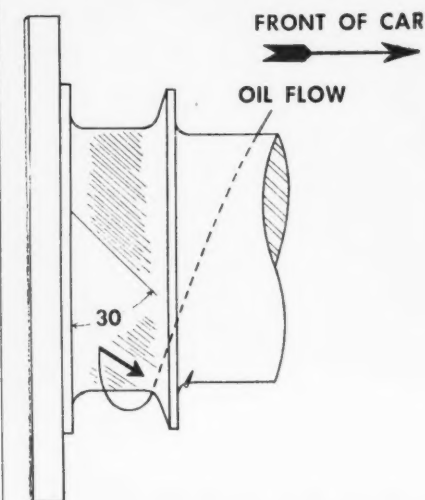
If the screw was loosened excessively in Step 3, serration contact will be lost and movement of serrations in transmission cannot be heard and/or felt.

(5) After tensioning as indicated above, start the engine and operate wipers. With the engine running, turn the wiper control off to park the wiper under vacuum.

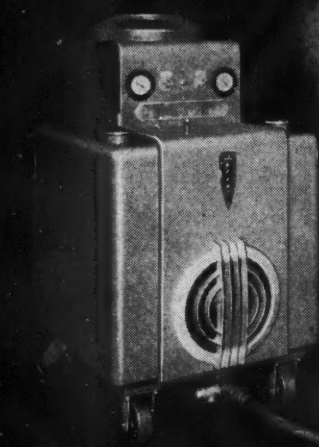
## Better Seal on Plymouth With Knurled Crankshaft

To assist in obtaining a positive seal at the rear main bearing, P-22 and P-23 model Plymouths have a

(Continued on page 162)



## You Can Really Clean Up with the



*John*  
**BEAN**

## VISUCLEANER

You'll clean up more work — and more profit — with the John Bean Visucleaner. Its many features — speedy starting, safe and simple operation, low operating costs, easy maintenance and rugged trouble-free design — make it the best steam cleaner you can buy. See your John Bean Jobber today.

**JOHN BEAN DIVISION**  
FOOD MACHINERY AND CHEMICAL CORPORATION  
LANSING 4, MICHIGAN



WHEEL ALIGNERS • WHEEL BALANCERS • TIRE DESKIDDERS  
STEAM CLEANERS • CAR WASHERS • HEADLIGHT TESTERS  
• ACCESSORIES AND ALLIED TOOLS •

## Here's Another Time Saver



*New John*  
**BEAN**

## CASTER SHIM RACK

Save time, make bigger profits by having shims instantly available in the John Bean Shim Rack. Sturdy metal rack stands on bench, hangs on wall. Comes equipped with assortment of 100 shims for Nash-Willys-Lincoln-type suspensions and 90 shims for other knee-action cars.



"We use a Schrader Gauge  
like a 'dipstick' to sell  
all our tire services"



Philip Kobscenski, owner of Phil's Auto Supplies,  
199 Main Ave., Wallington, N. J., says:

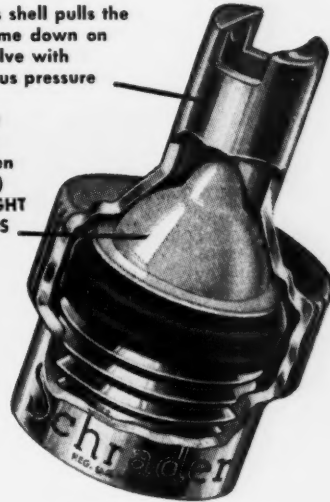
"Air service pays off in many ways. It creates a good customer-dealer relationship... steady customers. Air service also gives us a chance to check tire wear."

Increase *your* business with Schrader Certified Air Service. For instance, when you're using your Schrader Gauge your "nose is practically on the tire" where you can spot the worn ones!

Always protect your Certified Air Service and your customer's tires. Seal tire valves with the finest airtight Cap that engineering can produce—*genuine* Schrader Valve Caps.

Rugged brass shell pulls the  
sealing dome down on  
the valve with  
tremendous pressure

This sealing unit  
(domed-rubber  
vulcanized between  
two brass plates)  
**GUARANTEED AIRTIGHT  
UP TO 250 POUNDS**



**ALWAYS SPECIFY  
QUALITY SCHRADER VALVE CAPS  
Order from your supplier**

Kenneth Kobscenski

# Schrader

REG. U. S. PAT. OFF

A. SCHRADER'S SON

Division of Scovill Manufacturing Company, Incorporated  
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

knurled surface on the crankshaft in the area under the rope type seal. These knurls act to reverse the direction of the oil flow around the crankshaft at the seal and direct it to the bearing sump and from there to the oil pan. For this reason, the knurled surface should not be polished or ground off the crankshaft for any reason.

## Oversized Brake Linings Not Required on Cadillac

Tests have indicated that it is rarely necessary to turn brake drums when brake relining is necessary. Light score marks are permissible as the new brake linings will wear to conform with the existing drum pattern in a short time. Drums that are severely

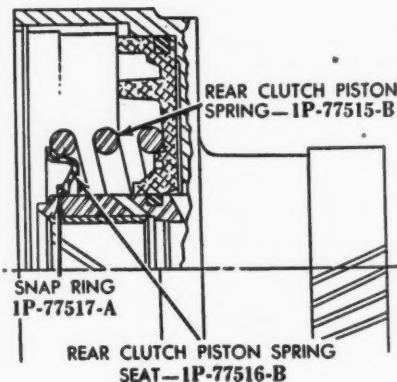
scored are better discarded than turned since it is extremely difficult to turn a brake drum and keep within factory drum run-out specifications.

If, in the serviceman's opinion, it is still advisable to turn the drums, the standard size brake linings may still be used as long as not more than .060 inch of drum diameter (.030 inch measured on the radius) is removed. When this is done, however, Cadillac owners should be cautioned to break in the brakes gradually until the center of the lining, which first contacts the drum, is worn in sufficiently to allow full lining contact with the brake drums. This should not take longer than 500 miles.

## Rear Clutch Piston For 1952 Fordomatics

A revised rear clutch piston spring (1P-77515-B) and seat (1P-77516-B) have been released for use in production and service.

The diameter of the new spring is 0.050 inch smaller than the spring (1P-77515-A) previously used. This smaller diameter will provide a definite clearance between the spring and the clutch cylinder on transmissions previously produced, and will provide still greater clearance on current production units.



Since the new spring is of left hand coil design, it may be readily distinguished from the former spring. The revised rear clutch piston spring and seat should be installed in any transmission that is disassembled for any type of repair. If the revised spring seat is not available, the old spring seat may be used with the revised spring.

(Continued on page 166)

Just the carburetor parts you need!

# HYGRADE

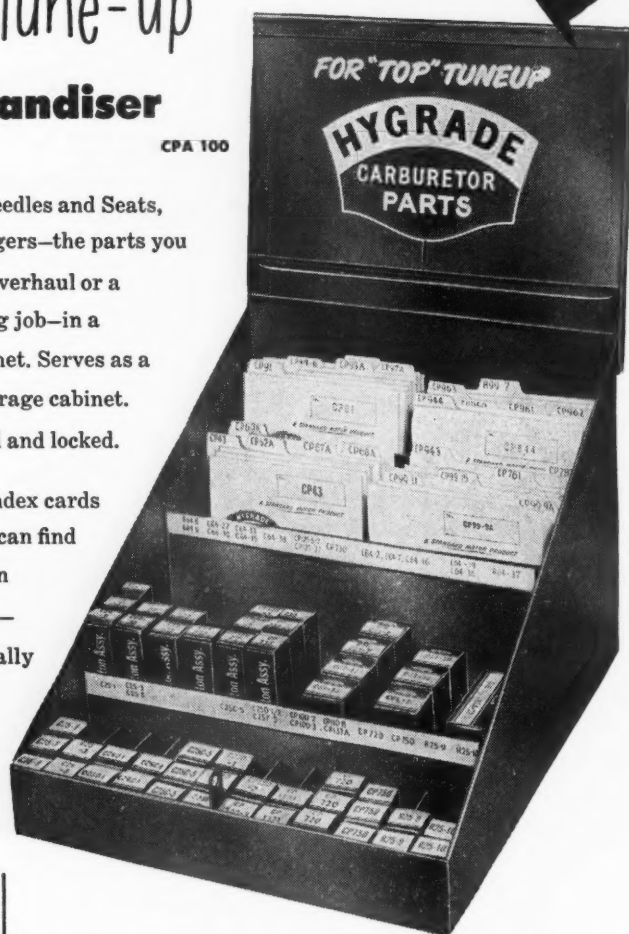
"Top Tune-Up"

merchandiser

CPA 100

Gasket Packets, Needles and Seats, Pump Piston Plungers—the parts you need for a simple overhaul or a complete rebuilding job—in a durable metal cabinet. Serves as a display, or as a storage cabinet. Cover can be closed and locked.

Partitioned with index cards and labels . . . you can find the right part in an instant. No waste — parts are individually packaged!



Write for catalog sheet HF491 describing special price offer, free dealer helps.

## HYGRADE PRODUCTS DIVISION

Department MA 2

STANDARD MOTOR PRODUCTS, INC.  
37-18 Northern Blvd., Long Island City 1, N. Y.



# ALLEN'S GREAT SERVICE ORGANIZATION

... Keeps Your  
ALLEN EQUIPMENT Operating ...

EFFICIENTLY  
PROFITABLY  
ECONOMICALLY



## ALLEN SALES ENGINEERS

Wherever you are, there is an Allen Sales Engineer qualified to help you get maximum efficiency from your equipment.



## ALLEN DISTRIBUTORS

Your local Allen distributor is an important cog in the Allen Service Organization—ready to assist you with equipment, service and information.



## AUTHORIZED ALLEN SERVICE STATIONS

One of the 96 near-by Allen Service Stations is your assurance of fast, accurate and low cost maintenance of your equipment.



## ALLEN MECHANIC TRAINING

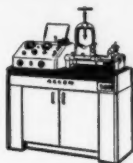
Individual instruction on equipment operation, service clinics, and automotive servicing schools are all a part of Allen Service.

Behind every piece of Allen equipment stands the largest and most experienced Service Organization in the equipment field ... Service that keeps your Allen equipment operating Efficiently, Economically and Profitably!

The Allen Service Organization is a nation-wide, unique, combination of Allen Sales Engineers, Allen Distributors, Allen Service Stations, and Allen Mechanic Training Programs. Only with Allen equipment can you get such assurance of valuable, fast and "personalized" service.



MOTOR ANALYZERS



REGULATOR-GENERATOR SERVICERS



DISTRIBUTOR TESTERS



BATTERY CHARGERS



OIL CHANGERS



Ask Him  
About Easy Payments!

ALLEN ELECTRIC AND EQUIPMENT CO. • KALAMAZOO, MICHIGAN



**SKIL**  
PORTABLE TOOLS



#### **SKIL Disc Sander—Model 11**

Heavy duty 7" disc sander for tough sanding, grinding, brushing. Capacity: 7" sanding disc, 5" wire cup brush or cup grinding wheel. Efficient 4200 r.p.m. speed. Gear locking pin for quick disc changes. Lightweight, only 11¾ lbs.

# "The SKIL Disc Sander has no equal for performance, power, control"...

—says **Victor Cipolla**, service man,  
**City Body Company**, Cleveland, Ohio

City Body Company, a subsidiary of Hull-Dobbs, Cleveland's largest Ford dealer, specializes in body repair work. Vic Cipolla says, "I've used practically every make of disc sander you can buy. Two years ago, I began using a SKIL Disc Sander. And now I wouldn't think of using anything else. This SKIL Model 11," he continues, "has reserve power—

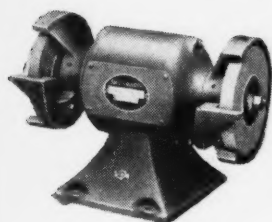
*more* than enough for any body work. It's light. It's easy to handle. And I have *far* better control with the weight of *this* sander.

"Performance? I've given it hard use—daily—for eight months and it's in new-tool condition. No maintenance needed. I've never seen another power tool to match this SKIL Disc Sander!"

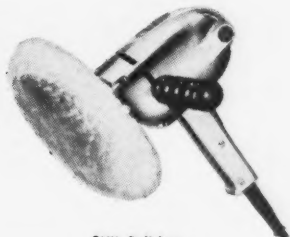
**SKIL Products are made only by SKIL Corporation • formerly SKILSAW, Inc. • 5033 Elston Avenue, Chicago 30, Illinois**

**SKIL Factory Branch Offices in 34 Principal Cities**

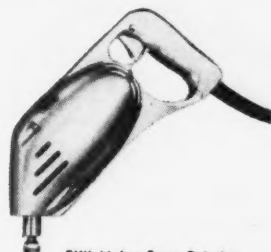
**In Canada: Skiltools, Ltd., 3601 Dundas Street West, Toronto 9, Ontario**



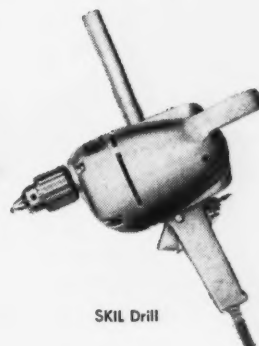
SKIL Bench Grinder



SKIL Polisher



SKIL Valve Seat Grinder



SKIL Drill

**ASK YOUR SKIL JOBBER—TODAY—FOR COMPLETE  
INFORMATION ABOUT THE WORLD'S FINEST AUTOMOTIVE TOOLS!**



## Changes Made in the Powerglide Valve Body

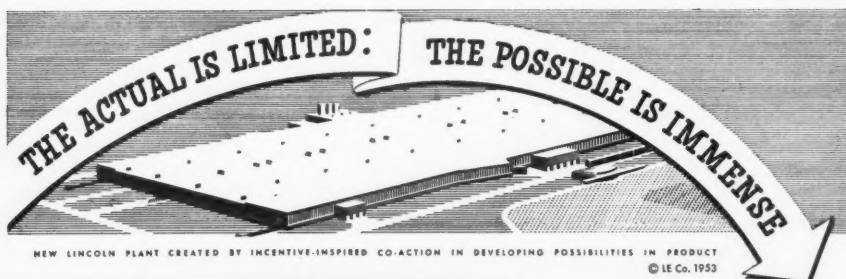
The 1953 Chevrolet Powerglide transmission valve body assembly has been changed to eliminate a metallic rapping noise which occurs on some early transmissions immediately after starting the engine. This noise is caused by the pressure

regulator valve pulsating back and forth and will continue, if the shift lever is left in neutral position, until the converter fills with oil. The condition is not detrimental to the operation of the transmission and in some cases will hardly be noticed or will be of short duration.

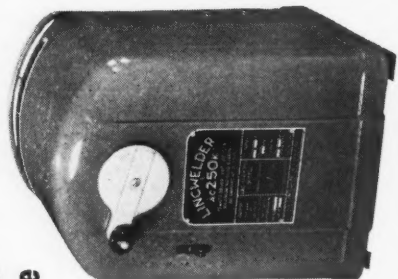
Shortly after the start of 1953

production, a change was made to incorporate a two-piece pressure regulator valve in the valve body assembly. The new valve provides an internal plunger which serves to dampen and oil cushion the assembly preventing excessive pulsation. Transmissions with the suffix "M27D" added to the serial number will have valve body assemblies with the two-piece pressure regulator valve.

At a slightly later date, the converter pressure regulator valve and transmission valve body were revised so that the valve now seals the oil in the converter and aids in preventing drain down when the engine is stopped and left standing. Previously the valve provided a restricted opening up to a converter pressure of 43-58 psi. at which time the valve opened fully. The new valve is similar in its operation except that it seals the oil in the converter and aids in preventing drain down when the engine is stopped and left standing. It seals the oil in the converter up to a pressure of approximately 10 psi, at which time it opens slightly to provide the restricted opening. The diameter of the restricted opening is .010 inch smaller in the new valve body.



## LINCWELDER'S FAST, EASY WELDING Saves shop time... speeds customer service



- **INSTANT ARC STRIKING**—Just touch the electrode to the work . . . the arc starts itself, automatically. No more electrode sticking.
- **BROAD RANGE**—Any current from 30 to 300 amps is instantly selected through a fast dial tuning control.
- **SIMPLE TO INSTALL**—Lincwelder operates on single phase current. Has built-in wheels for easy movement about the shop.
- **LOW PRICE**—ruggedly built industrial-type arc welder, yet sells for less than welders of similar capacity.

LINCWELDER AC-250-K, Lincoln AC welder. Has Arc Booster for easy arc starting. Ideal for fast repairs in garages and job shops on light or heavy work.

## SIMPLIFIES REPAIRS

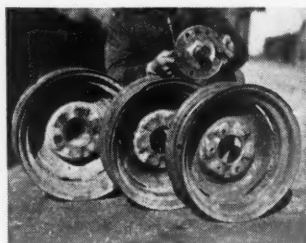


Fig. 1. Reclaims Wheels. Worn holes of wheel (left) are filled up with Lincoln "Fleetweld 7" (center). Using an old axle as a jig, new holes are accurately drilled to size.

## CUTS MANHOURS

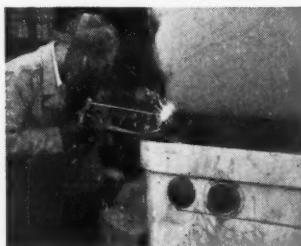
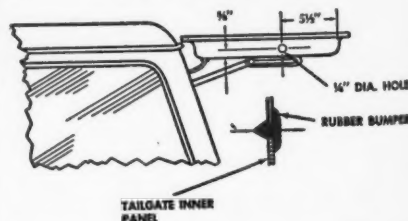


Fig. 2. Repairs Jacket in outer shell of carrier. Corner crack is welded water-tight with one pass of "Fleetweld 7". Job takes only 5 minutes with the "Lincwelder" AC-250-K.

## BOOSTS PROFITS

## Rubber Bumper Steadies Plymouth Tail Gate

When Suburban model Plymouths are driven over rough roads or under severe operating conditions, vibration or lateral movement may develop in the upper tail gate inner panel. To reduce this movement,



install rubber bumpers (part No. 1526206) on each side of the tail gate as shown.

Drill a 1/4 inch diameter hole in the side of the upper panel 5 1/2 (Continued on page 168)

GET THE FACTS—Send for free Bulletin 1331 that gives complete description. Write Dept. 4004.

**THE LINCOLN ELECTRIC COMPANY**

Cleveland 17, Ohio

THE WORLD'S LARGEST MANUFACTURER OF ARC WELDING EQUIPMENT

Doing business without advertising is like winking at a girl in the dark. You know what you are doing but no one else does.

GREAT NEWS FOR NIGHT DRIVERS!

# AUTRONIC-EYE

*Automatically ...*

LOWERS-

then RAISES the beam!



THE EYE  
THAT'S  
QUICKER THAN  
THE FOOT

You've done it many times before . . . but you'll never have to do it again! There's no more need for frantic footwork or headlight "fight" at night, thanks to Guide's new automatic headlight dimmer—the AUTRONIC-EYE. The AUTRONIC-EYE lowers your headlights for oncoming cars. Then it brings them back to "long range" when all cars are past—switches your lights from "bright" to "dim" to "bright" again—*automatically*! The AUTRONIC-EYE relieves you of countless foot operations—makes night driving a real pleasure! You're cordially invited to write us today for complete information.

*Guide*

FOR SAFER  
DRIVING

GUIDE LAMP DIVISION OF GENERAL MOTORS, ANDERSON, INDIANA

Mounted on the driver's side of the instrument panel, the AUTRONIC-EYE is the revolutionary new electronic device that dims and brightens your headlights automatically.

Chilton's MOTOR AGE, MAY, 1953

## Service Suggestions . . Continued from Page 166

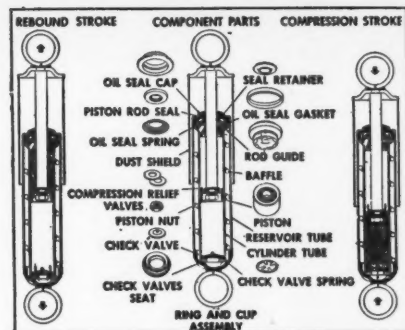
inches from the end. Insert a length of 1/16 inch wire into the hole in the head of the rubber bumper and push the bumper nipple through the hole in the side of the panel.

### Road Test is the Best Check for Oriflow Shocks

The Plymouth factory points out that the Oriflow shock absorbers

are designed to operate in accordance with the roughness of the road. Due to the design, there is considerable resistance to fast and severe up-and-down motions of the wheels. However, there is a small amount of resistance to slow and light motions.

As a result of this design, the true operating efficiency of Oriflow shock absorbers cannot be deter-



mined by a hand test or by rocking the car by the bumper. A hand test will only indicate complete failure of the unit.

All Oriflow shock absorbers should be road tested for an accurate indication of their effectiveness. Drive the car over a rough stretch of road. Then test the riding qualities on a smooth area to check the shock absorber piston speed under all types of driving conditions.

If the shock absorbers perform normally during the road test, they should not be replaced. Other items which may affect riding qualities should then be examined.

### Different Rear Axle Being Used on Fords

Two different differential gear cases are used in production and service, on passenger car rear axles. One case (8A-4205) is painted black and is used on all axles, from 1949-1953 inclusive, except the 3.31 ratio axle. The other case (1A-4205) is painted red and is used with the 3.31 ratio axle, installed in Fordomatic equipped cars. As a further identification, the case part number is cast into each case.

It is extremely important that the correct case be used with the specified axle ratio. Failure to observe this caution will prevent proper ring gear to pinion contact which will result in rear axle noise.

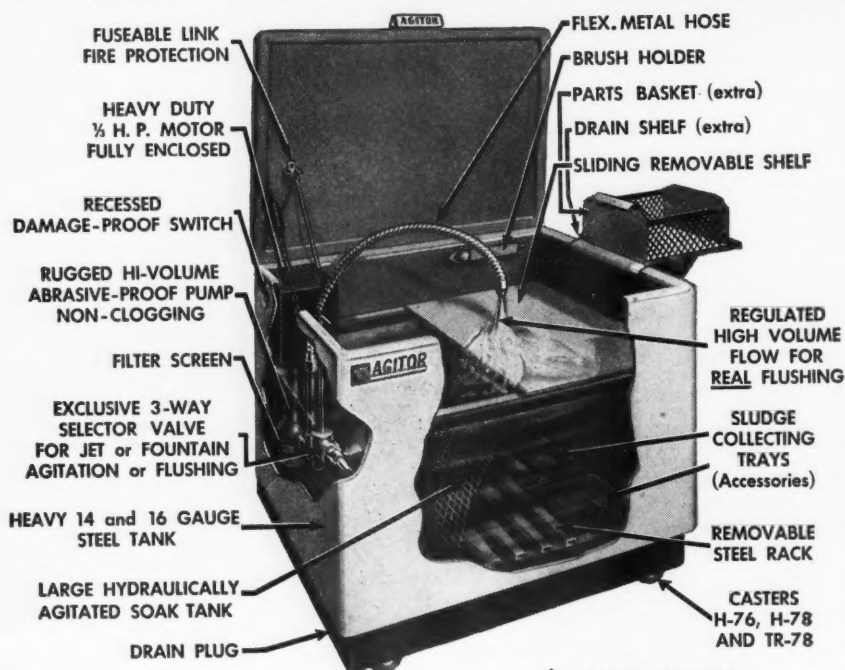
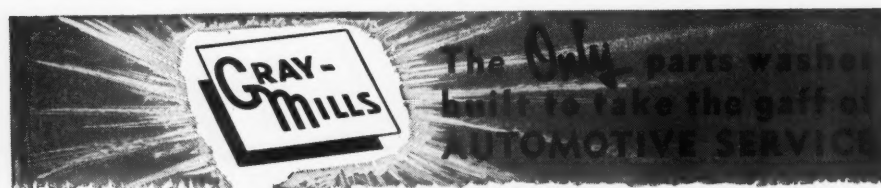
#### Famous Last Words . . .

He was telling her about the new football team.

"Now there's Wilson," he said, "in a few weeks he'll be our best man."

"Oh, Harry," she cried, "this is so sudden."

Chilton's MOTOR AGE, MAY, 1953



- Designed for large or small parts.
- Big heavy duty 1/3 H.P. non-clogging pumps.
- Exclusive flushing and hydraulic agitation features for easier, better cleaning of parts. Saves 30 to 75% cleaning time.
- New features make it easy to remove sludge and dirty solvent without draining.

**Buy no parts washer . . . sell no parts washer, until you get the facts about the NEW GRAYMILLS line. Pump and Motor guaranteed one year.**

Get new GRAYMILLS 12 page catalog. Describes 15 models. Prices for complete units as low as \$59.75.

**SAVE WORK  
SAVE MONEY  
SAVE HANDS**

ORDER . .

**AGITENE**

Safe . . . non-toxic  
**PARTS  
CLEANING  
SOLVENT**  
Use it cold.  
Now contains  
**TERGENE** for  
faster cleaning  
55 gal. \$44.50  
30 gal. \$30.00  
No freight to pay.

\*Prices about 10% higher in West and South.



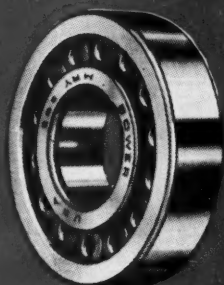
**GRAYMILLS CORPORATION**

3737 NORTH LINCOLN AVENUE, CHICAGO 13, ILL.

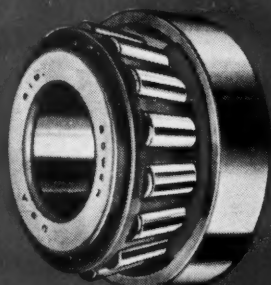
West Coast Offices and Warehouses—4511 Melrose Ave., Los Angeles



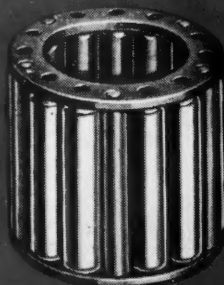
**TAPERED AND STRAIGHT ROLLER BEARINGS**



**STRAIGHT**  
roller bearings



**TAPERED**  
roller bearings

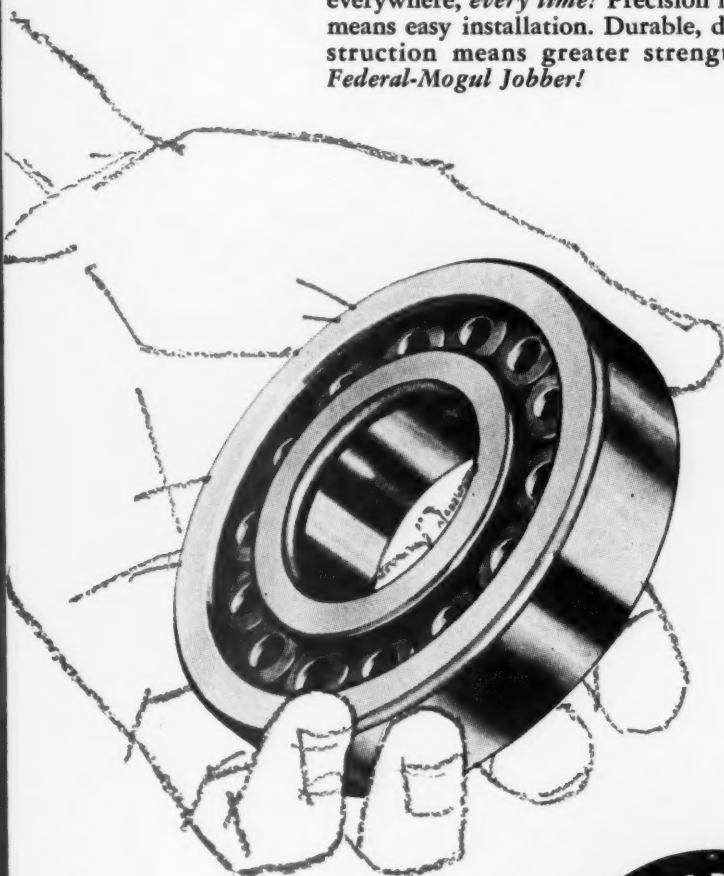


**JOURNAL**  
roller assemblies

# Bower

**BOWER STRAIGHT ROLLER BEARINGS**

... fast becoming "first choice" of good mechanics everywhere, *every time!* Precision manufacturing means easy installation. Durable, double-lip construction means greater strength. *Ask your Federal-Mogul Jobber!*



**FEDERAL-MOGUL SERVICE**  
(Division of Federal-Mogul Corporation)  
**DETROIT 13, MICHIGAN**



Get Bower replacement roller bearings through your Federal-Mogul Jobber . . . another Federal-Mogul Service!

June is National

# "GET THE DENTS OUT OF YOUR FENDERS" Month!



**ORDER** these "DOOF" business-boosters... they tell EVERYBODY that JUNE is the time to have car bodies and fenders repaired!

- POSTCARDS
- NEWSPAPER AD MATS
- WINDOW STREAMERS
- RADIO COMMERCIALS
- GIANT POSTER
- BUTTONS
- ESTIMATE TAGS

## ANOTHER 3M SERVICE

**ORIGINATED** and sponsored by 3M Company—Makers of "Scotch" Brand Masking Products, "3M" Abrasives, "3M" Adhesives.

Refinishers everywhere are sold on "DOOF"... Read why:



**NEW ORLEANS, LA.** "I got \$4500 EXTRA business in one month with 3M's 'DOOF' Program," says B. J. Mayer, Service Manager of Colonial Buick. "You can bet we'll be solidly behind 'DOOF' again this year!"



**CHICAGO, ILL.** "We got 25% more business last June with 3M's 'DOOF' Program," says Anthony Barile of Jackson Auto Construction Co. "What's more, our volume has been up ever since! Our thanks to 'DOOF'!"

**"DOOF" will put MONEY in your POCKET...**

Call your 3M or jobber salesman **TODAY** for full details



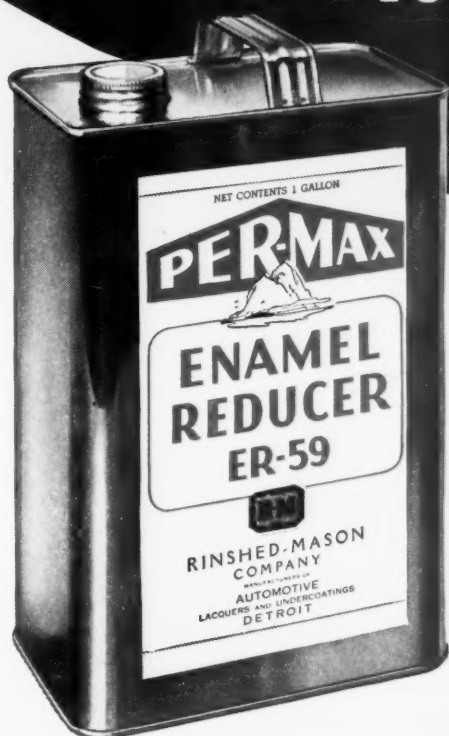
Made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Brand Pressure-Sensitive Tapes, "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 122 E. 42nd St., New York 17, N. Y. In Canada: London, Ont., Can.



# ***NEW!*** ***Enamel Combination***



**...DRIES DUST FREE  
in 10 to 15 MINUTES!**



- ✦ New Fast Drying Combination  
requires **NO EXTRA EQUIPMENT!**
- ✦ **NO ANNOYING ORANGE PEEL!**
- ✦ **MORE PAINT JOBS PER DAY!**
- ✦ **ASK YOUR R-M JOBBER!**

**RINSHED-MASON Co.**



5935 MILFORD AVENUE, DETROIT 10, MICHIGAN

1244 N. LEMON STREET, ANAHEIM, CALIFORNIA

In Canada: Standard Paint & Varnish Co., Ltd., Windsor, Ont.

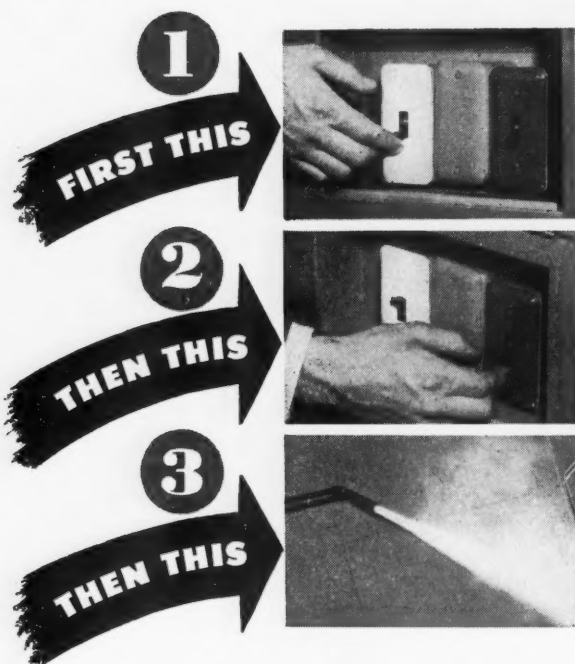
*Manufacturers of passenger and commercial car lacquers, enamels, primers, surfacers, tinting colors, thinners, removers, rubbing compounds, etc.*



JUST FLICK  
A SWITCH...  
IT'S

# AUTOMATIC!

**KELITE STEAM CLEANING**  
with **NEW POWER...**  
**NEW CAPACITY, unequalled**  
**simplicity... FOR YOU!**



**GET YOUR FREE COPY  
of Bulletin 128 about  
the Kelite Automatic.  
WRITE TODAY—NOW!**

**Steam Cleaning was NEVER so Easy!**

There's push-button simplicity in the new Kelite Automatic Steam Cleaner...new ease of operation...new speed and efficiency. Flick one switch and the exclusive Kelite reciprocating pump springs into action...flick the other, and the automatic oil burner ignites. Firing is automatic...so simple a child could do it. In an actual field test, this steam cleaner was readily operated by three hundred uninstructed people—none of whom had ever operated a steam cleaner before. *It's far easier to start this machine than to start an automobile!*

**KELITE**  
REG. U. S. PAT. OFFICE  
**PRODUCTS, INC.**

1250 NORTH MAIN STREET • LOS ANGELES 12  
Service Offices in 98 American Cities and 16 Countries Abroad

## NEW DESIGNING FOR NEW EFFICIENCY

You get important fuel savings with the Kelite Automatic, too! The exclusive Kelite Water Wall puts radiated burner heat to work...raises the water temperature 50° before it enters the heating coil.

Important, too, are the unmatched safety features designed for this amazing machine. A new thermal shut-off valve turns off the burner if your water supply fails...and interlocked wiring prevents firing the burner until the pump is operating.

Yes, the Kelite Automatic is truly fool-proof. Its efficiency, simplicity, and its exclusive High-Volume-High-Velocity steam blast give it unrivalled dirt dissolving capacity. Unquestionably, it is the finest steam cleaner on the market today. See it.



**KELITE COMPOUND  
NUMBER 24**

is ideal for heavy duty work with any steam cleaner. It will not break down...slows scale deposit...has no stinging vapor...a pH value that makes it work harder, go farther, cost less. Improves operation of all makes of older machines.

*"We know Commercial Credit wouldn't hesitate to help us out in any emergency"*

SAY COMAN MUNROE AND JOHN ZEDER, left to right, co-owners of Munroe Zeder Inc., action-minded Chrysler-Plymouth dealers of Miami, Florida.



**M**UNROE ZEDER'S exclusive use of the COMMERCIAL CREDIT PLAN today dates back to 1937 in Detroit, Michigan—8 years before they opened the doors for business. There as retail Chrysler salesmen they determined to mount COMMERCIAL CREDIT in on their own agency plans. For as both Mr. Munroe and Mr. Zeder agree:

*"The greatest benefit of doing business with COMMERCIAL CREDIT is the feeling of security one has, not only in all financial transactions, but with our personal association with the company at large."*

And like so many other dealers, Mr. Munroe and Mr. Zeder expressed complete satisfaction with COMMERCIAL CREDIT personnel who *give quick, accurate approval of finance deals and act promptly on insurance losses*. No wonder more and more car dealers are turning to COMMERCIAL CREDIT's business "know how," ample resources and complete facilities for their financing needs. Why not call or write the COMMERCIAL CREDIT office nearest you for complete details? Ask to see "The Salesman's Angle" when you do.

**COMMERCIAL CREDIT DEALERS ARE *Successful* DEALERS**



**COMMERCIAL  
CREDIT  
CORPORATION**

A service offered through subsidiaries of  
Commercial Credit Company, Baltimore  
... Capital and Surplus over \$125,000,000  
... offices in principal cities of the United  
States and Canada.



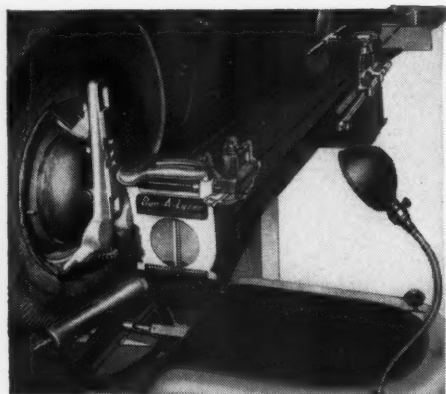
# Here's more than mere

## It's a GOLDMINE in Your Shop



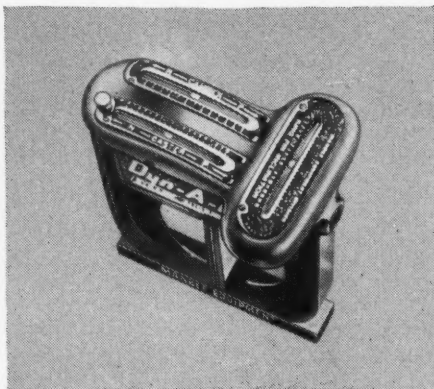
**The New Dyn-A-Lyzer—Revolves the wheels**  
**Does MORE than any other alignment machine—**  
**SPEED, EASE and ACCURACY never before obtainable**

**See how POWER OPERATION and SCIENTIFIC METHODS save TIME—**  
**save LABOR—assure ACCURACY that gets the job done right**



**FLICK A SWITCH AND REVOLVE THE WHEELS.** Show your customer how his car runs on the road.

Restore the countless front end parts to their true road positions—eliminate chronic causes of inaccurate alignment before you start to check. With the Dyn-A-Lyzer accurate alignment service becomes automatic—no rolling—no shaking—nothing to neglect.



**FOR TRUE CAMBER READINGS, UNAF- FECTED BY INACCURACIES OF RIM, TIRE, or HUB, flick a switch and revolve the wheels.** Also, with wheels revolving, check wheel runout at a glance.

**CHECK KING PIN INCLINATION with CASTER AND TURNING RADIUS—locate bent spindles before you start correct- ing.** It's a quick, easy way to avoid complaints and costly adjustments.



**WITH THE SCIENTIFIC TRACTOSCOPES,** check tracking; locate swayed frames, bent rear housings and shifted rear housings, before you set Toe.

**Set Toe and Center Steering to hair- line precision in the same operation.**

**Then flick a switch and road-test the car on the rack—there's nothing like it.** You don't even have to set the car square on the rack.



# Improvement!

There's nothing like the

## Dyn-A-Lyzer

The ONE and ONLY

### Dynamic 4-wheel Alignment Analyzer

#### Read what users say \*

"Our Dyn-A-Lyzer averages around \$800.00 monthly profit."

"We paid for our Dyn-A-Lyzer in three months from service profits after absorbing new car service."

"Our Dyn-A-Lyzer has enabled us to change steering complaints to praise at a tremendous profit."

\*Names on request.

"Since installing the Dyn-A-Lyzer our customers say they never had such perfect steering."

"Dyn-A-Lyzing has doubled our alignment service profits, but even if it just broke even, the increased satisfaction of our customers makes it one of our most important services."

#### Assures Full Profit on Every Job

With the Dyn-A-Lyzer you do the job right the first time—

Eliminate causes of error before you check.

Locate inaccuracies before you CORRECT.

CORRECT with precision instruments that eliminate guesswork. No complaints, no comebacks, no costly reserving.

Make full profit on every job.

100% satisfaction keeps your shop filled with business.

Operating instructions right in your shop start the profit flowing the day your Dyn-A-Lyzer is installed.

A complete Merchandising Program brings in the business.

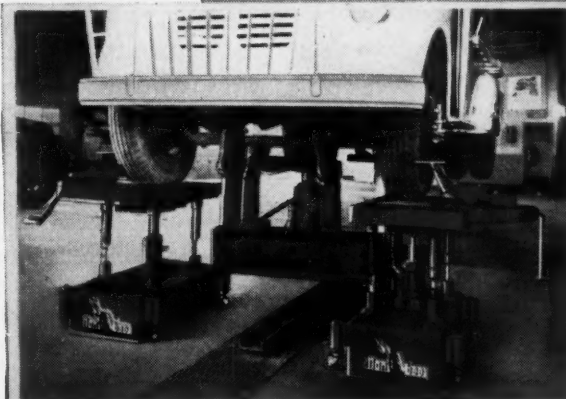
Ask your MANBEE Jobber.



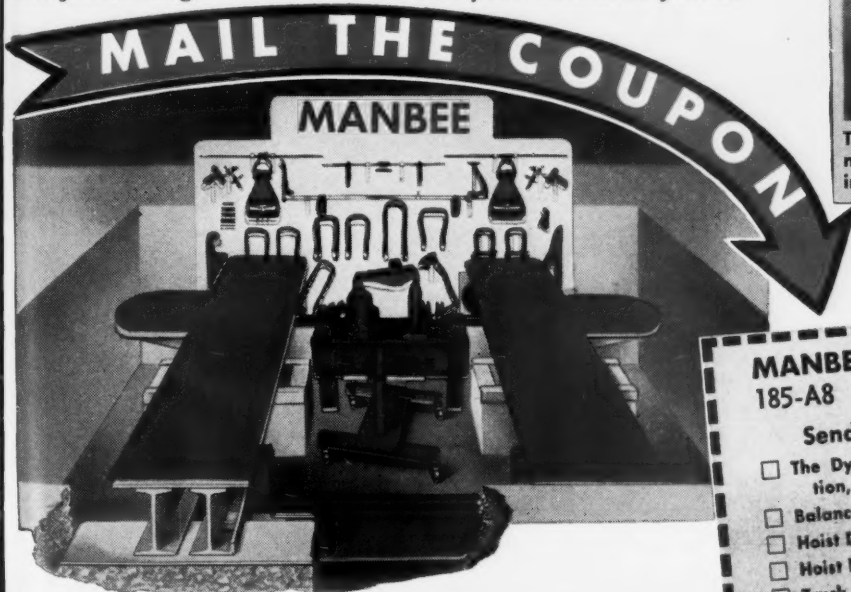
**BALANCE MASTER**—Complete Static and Dynamic Wheel Balancer. Fast—Accurate—Dependable. A fascinating demonstrator and terrific money maker. Mail the coupon.



**HOIST DYN-A-LINER** — Profitable — Easy — Fast — Accurate Wheel Alignment Service with no space tie-up. Mail the coupon for particulars.



**TRUCK AND BUS HOIST DYN-A-LINER**—Handles ALL sizes—no space tie-up—straightens heaviest axles, COLD. No heating—no dismantling. Mail the coupon for particulars.



**TRUCK, BUS AND TRAILER WHEEL ALIGNER** — Handles ALL sizes — LARGE or small. Straightens heaviest axles, COLD—no heating—no dismantling. Has no equal. Mail the coupon for particulars.

**MANBEE EQUIPMENT DIVISION**  
185-A8 North Wabash Ave., Chicago 1, Ill.

Send complete information about—

- ☐ The Dyn-A-Lyzer, ☐ with drive-on rack, ☐ for pit installation, ☐ change-over for our present rack.
- ☐ Balance Master Dynamic and Static Wheel Balancer.
- ☐ Hoist Dyn-A-Liner for passenger cars.
- ☐ Hoist Dyn-A-Liner for trucks, buses and passenger cars.
- ☐ Truck, bus and trailer Wheel Aligner.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_  
City \_\_\_\_\_



# The Sign of Greater Profits!

**Average monthly gallonage of Sunoco Dealers  
beats competition 2 to 1. Here's why:**

## **1. LARGE MARKET AREA**

Sunoco Dealers have markets big enough to earn them greater profits year after year. Overlapping and crowding of Sunoco stations in a market area is avoided.

## **2. PRODUCT ACCEPTANCE**

Sun's basic product principle of a "One Grade—One Price" gasoline for high-test performance at regular gas price has attracted a customer loyalty that is unparalleled.

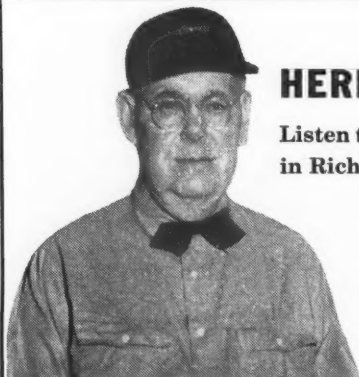
## **3. SALES SUPPORT**

Strong merchandising and advertising is constantly used to back up the Sunoco Dealer. Sales counselors keep the dealer up-to-date on market and sales conditions.

## **DEALERSHIP OPPORTUNITIES**

A Sunoco dealership may be available in your area! For further information contact the local office of Sun Oil Company in your community.

SUN OIL COMPANY



**HERE'S MORE PROOF:**

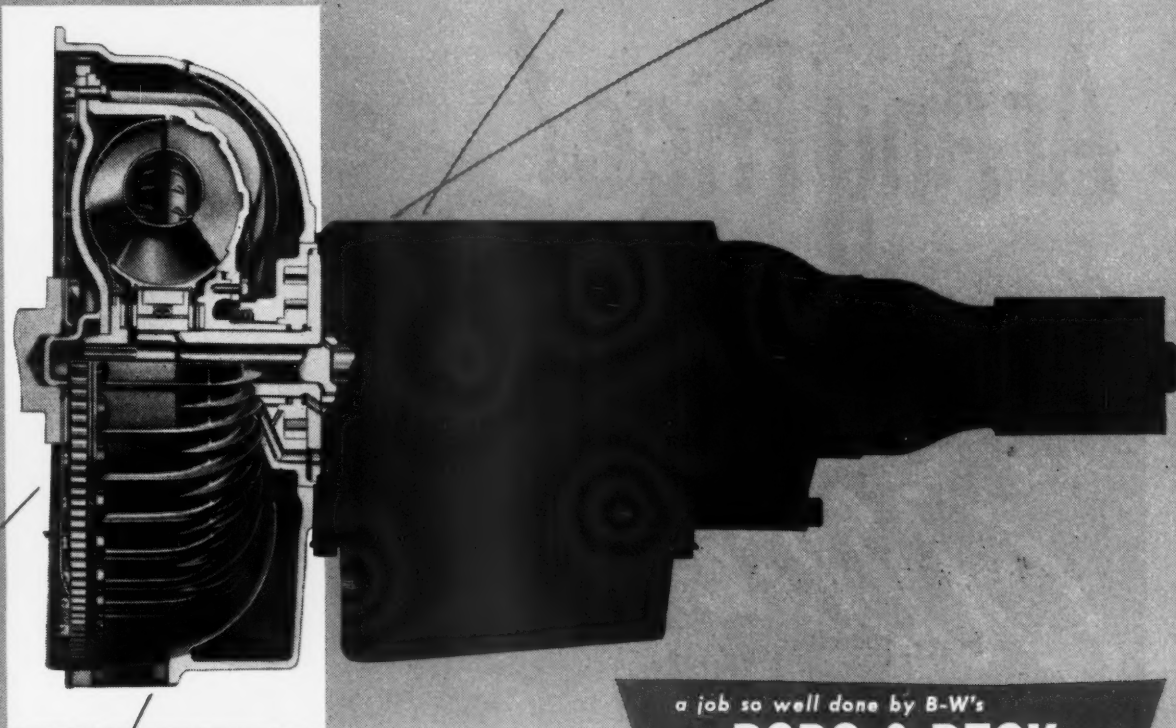
Listen to what L. H. Bowing, Sunoco Dealer in Richmond, Indiana, has to say:

"I doubled my former gallonage when I switched to selling Blue Sunoco. And new customers keep coming in!"

**Customers stay with you when you sell SUNOCO Products.**



# helping to put the **AUTOMATIC** in automatic transmissions



a job so well done by B-W's

## **BORG & BECK**

division

Borg-Warner's Borg & Beck clutches for standard automotive transmissions are known and used the world over. With the swing to automatic transmissions, Borg & Beck was ready again with the perfected Borg & Beck torque converter for that vital spot where power takes hold of the load.

On leading makes of cars with automatic transmissions, power is transferred by this new, unique, simplified converter. Exceptionally light in weight, air cooled, with a torque ratio of 2.1 to 1, it is highly efficient, remarkably dependable in helping to put the "automatic" in automatic transmissions.

This is one more outstanding example of how "Borg-Warner engineering makes it work—Borg-Warner production makes it available." It is a typical example of how Borg-Warner serves the automotive industry—and the American public—every day.

ALMOST EVERY AMERICAN BENEFITS EVERY DAY FROM THE 185 PRODUCTS MADE BY **BORG-WARNER**



*B-W engineering makes it work  
B-W production makes it available*

#### THESE UNITS FORM BORG-WARNER, Executive Offices, Chicago:

ATKINS SAW • BORG & BECK • BORG-WARNER INTERNATIONAL  
BORG-WARNER SERVICE PARTS • CALUMET STEEL • CLEVELAND COMMUTATOR  
DETROIT GEAR • FRANKLIN STEEL • INGERSOLL PRODUCTS • INGERSOLL STEEL  
LONG MANUFACTURING • LONG MANUFACTURING CO., LTD. • MARBON  
MARVEL-SCHUBLER PRODUCTS • MECHANICS UNIVERSAL JOINT • MORSE CHAIN  
MORSE CHAIN CO., LTD. • NORGE • NORGE HEAT • PESCO PRODUCTS • REFLECTAL  
ROCKFORD CLUTCH • SPRING DIVISION • WARNER AUTOMOTIVE PARTS  
WARNER GEAR • WARNER GEAR CO., LTD. • WOOSTER DIVISION



# No Better Valve At Any Price!

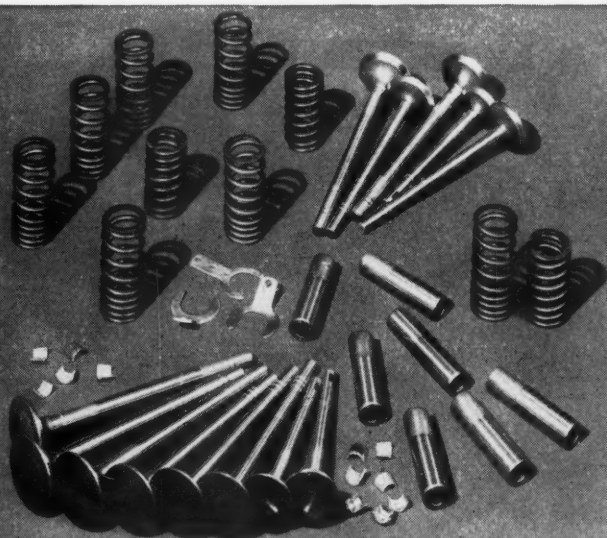
High Chrome-Nickel  
Austenitic Steel  
for resistance to  
heat and corrosion

Low Chrome-Nickel  
Steel for greater  
resistance to wear

## Allied

### BI-METAL VALVES

Valves, springs, keys and guides must work as a perfect unit. In the Allied line, these vital parts are engineered together—to work together in the valve assembly.



● For performance, life and *profit-to-you*, Allied Austenitic Stainless Steel Valves are the finest valves you can install in a motor. Allied's advanced *bi-metal* construction combines a head remarkably resistant to heat and corrosion with a stem outstanding in its resistance to wear. Result: Allied *bi-metal* valves deliver performance, stamina and service life unsurpassed by any exhaust valve on the market.

Allied valves and related parts are produced in plants second to none in the industry. They are quickly available—conveniently packaged and clearly cataloged—in a broad line for cars and trucks of all makes.

Call on your Allied Jobber. Make his store your headquarters for valves and all your motor parts requirements.

ALLIED MOTOR PARTS COMPANY • DETROIT 1, MICHIGAN



Pistons • Piston Pins • Piston Pin Bushings • Piston Pin Set Screws • Piston Pin Lock Rings • Valves • Valve Guides • Valve Keys • Valve Springs • Expansion Plugs • Cylinder Sleeves • Cylinder Sleeve Assemblies • Water Pumps • Water Pump Parts and Packing

When the Motor is *Down* Build it *Up* with

## Allied MOTOR PARTS



**CAPT. EASY** Says:

**"IT'S NEW ...  
IT'S BIGGER AND  
BETTER THAN EVER ...**

**IT'S THE**

**WEATHERHEAD  
CATALOG FOR '53!"**

- 1 STANDARD FITTINGS DATA,**  
complete and up to date, including:
- |                         |                     |
|-------------------------|---------------------|
| Inverted                | Dash Controls       |
| Compression             | Brake               |
| S. A. E.                | Stop-Light Switches |
| Pipe                    | Tools               |
| Drain and Shutoff Cocks |                     |

- 2 COMPLETE HOSE SECTION,**  
including:
- |             |                                |
|-------------|--------------------------------|
| Gas Lines   | Window Lift Hose and Fittings  |
| Oil Lines   | Power Steering Hose            |
| Brake Hose  | Heavy Duty Hose and Couplings  |
| QA Fittings | J. I. C. Fittings and Adapters |

- 3 LARGEST INTERCHANGE SECTION**  
ever published; covers 101 manufacturers, including:
- |                |                        |
|----------------|------------------------|
| Aeroquip       | Edelman                |
| Anchor         | Chrysler               |
| General Motors | U. S. Government Parts |
| Ford           | Wagner                 |
| Imperial       |                        |

## Get Your Copy Now!

J-103 for '53 is complete, up to date, EASY to use. If you don't have your copy, write: Standard Parts Division, The Weatherhead Company, Dept. D, 300 East 131st Street, Cleveland 8, Ohio.





You'll need this key  
**WITHIN 90 DAYS**

See this space next month for the most unusual  
announcement ever made about a storage battery.





**"Whenever you take out an oil seal,  
always replace it with a new one..."**

Why lose time getting parts? National Service Stocks insure the right seals on hand, when, where needed. Jobber keeps stock up—no work for you. Cabinet comes with the deal. Ask your jobber for complete information.

**Service stocks to fit your needs**



#5512. For lube stations. 58 popular front wheel seals.



#5511. For garages. 114 fast-moving front, rear seals.



Support this industry wide program...

**...and be sure the new seal is a National!**  
Take a brake reline. New seals are the surest way to keep dirt, water, grease off new linings. Car manufacturers and brake lining people all say "new seals" because they know *their* parts work best when protected best. Give the car owner a professional job, make extra profits at no extra work. Replace with new National Oil Seals—every time!

**NATIONAL MOTOR BEARING CO., INC.**

General Offices: Redwood City, Calif. Plants: Redwood City, Calif.; Van Wert, Ohio

**NATIONAL**  
OIL & GREASE SEALS  
O-RINGS SHIMS

Approved original equipment for all cars, trucks, buses and tractors.

***"...Upwards of  
80 per cent of all  
Gulf Oil employees ..."***



**S. A. SWENSRUD**  
President, Gulf Oil Corporation

***"I have no hesitation in saying I believe it is a sound thing for our industry to support the Government's Payroll Savings Plan and to encourage our employees to put at least a substantial part of their savings into U.S. Savings Bonds. Upwards of 80 per cent of all Gulf Oil employees save part of each pay in E Bonds. This type of thrift is good for the nation as well as for the individual."***

**At the close of 1952—**

- Individual Americans owned Savings Bonds totaling more than \$49 billion, cash value.
- Series E Bonds outstanding—the kind bought by Payroll Savers—were more than \$600 million greater than on May 1, 1951, when the bonds issued in 1941 started to mature.
- Of the \$4.8 billion Series E Bonds which matured between May, 1951, and December, 1952, more than \$3.6 billion (75%) were held beyond maturity, under the automatic extension plan.
- More than 77 million units of Series E Savings Bonds were bought by individuals in 1952—13% more than in the previous year.
- During every one of the past 21 months, redemptions of

unmatured Series E Bonds have been well under 1% of the total amount outstanding.

- 1953 figures should be even better—more than 1,000,000 Americans joined the Payroll Savings Plan in 1952, and thousands, literally, are enrolling every day.
- Never before in the history of this or any other country have employed men and women held a reserve purchasing power of \$49 billion in government securities—a cushion against emergency, a check on inflationary tendencies.

If you believe with Mr. Swensrud that "it is a sound thing for industry to support the Payroll Savings Plan . . ." and ". . . this type of thrift is good for the nation as well as the individual," phone, wire or write to Savings Bond Division, U. S. Treasury Department, Washington, D. C. Your State Director will show you how your participation can be raised to 60%, 70% or even higher.

*The United States Government does not pay for this advertisement. It is donated by this publication in cooperation with the Advertising Council and the Magazine Publishers of America.*



## MOTOR AGE



# Du Pont DOES MORE FOR DEALERS...

Full-page, attention-getting advertisements like this one from MECHANIX ILLUSTRATED pre-sell Du Pont's fine automotive products to millions of men.



## Du Pont AUTOMOTIVE PRODUCTS

are regularly advertised in **MECHANIX ILLUSTRATED**—

Because MI's over a million male readers look to MI—the favorite magazine of automotive-minded men—for the latest facts on cars and car upkeep. Just as they look to MI's regular editorial features... such as Tom McCahill's "New Car Tests" and Fred Russell's "Car Care"... they also turn to MI's advertising pages to learn of quality automotive products.

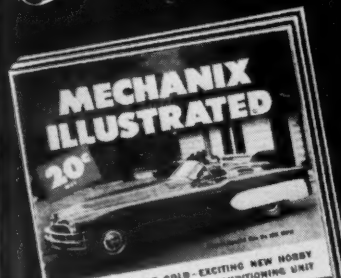
Du Pont's Finishes Division knows what these men—who demand the best for their cars—can mean to your sales. To make the most of DuPont's intensive pre-selling advertisements, make sure that your customers are aware that you carry DuPont's automotive products.

# MECHANIX ILLUSTRATED

*The favorite magazine of motor-minded men*

A FAWCETT PUBLICATION

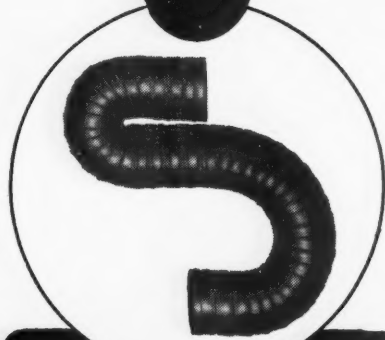
67 WEST 44th STREET • NEW YORK 36, N. Y.





**SAVE TIME!  
Build PROFITS!**

**WIREMOLD  
DEFROSTER  
HOSE**



- ▶ Fits every make and model of car or truck
- ▶ Specified equipment on most makes of cars
- ▶ Easily bends 90° — 180°
- ▶ Resists cold—heat—oil—water
- ▶ Saves 50% storage space—6' lengths retract to 3' in package
- ▶ Wiremold quality at a competitive price

Installing Wiremold is simple and fast. This quality hose is light, clean, easy to cut and easy to handle! You can bend it double without kinking. It fits snug and tight, and it's very durable. Both you and your customers will like it better! Write today for full information.

**SPECIFY  
WIREMOLD—  
get the BEST  
at NO  
EXTRA  
COST!**

**The WIREMOLD Company**  
Makers of Wiremold Electrical Systems  
Hartford 10, Connecticut

### Maremont Provides Track For Chicago Hot Rodders

Maremont Automotive Products, Inc., has given approximately 500 hot rodders of the Chicago area a safe, off-the-highway "drag strip" where they can test the speed and performance of their vehicles.

In the interest of highway safety and automotive engineering, Maremont has underwritten the purchase of Half Day Speedway in Half Day, Illinois. The automotive parts firm believes that the Speedway will eliminate the so-called "shot rod" problem in the Chicago area.

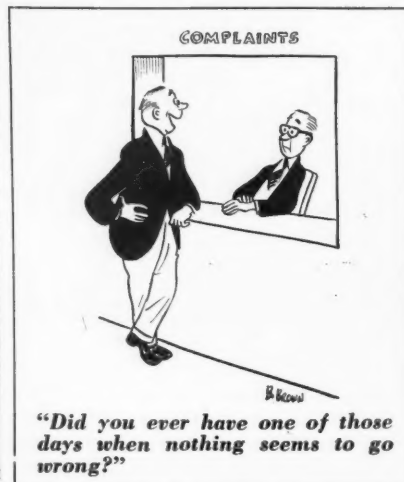
The speedway is now being operated on a non-profit basis by the hot rodders themselves under the auspices of the Automobile Timing Association of America, Inc., a non-profit corporation formed by Maremont.

### New Willys Jeep Features F-Head Hurricane Engine

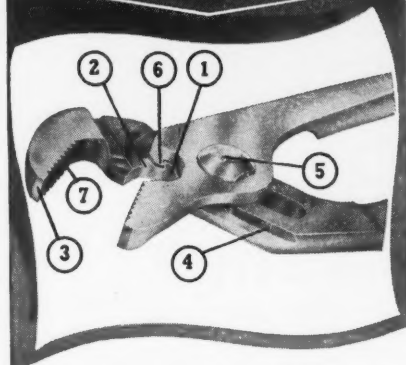
A new model of the Universal Jeep, first major change in this civilian vehicle since 1946, was announced by Willys-Overland Motors.

The new Jeep is designed to utilize the company's four-cylinder Hurricane engine recently incorporated in a new model military Jeep designed for the Armed Forces. Of F-head design similar to that of the six-cylinder Hurricane used in the Aero Willys passenger car, the Jeep's new engine has a maximum brake horsepower of 72 at 4,000 rpm, an increase of 20 per cent over the rating of previous models.

The maximum torque has been increased from 105 to 112 pound feet. Compression ratio has been increased from 6.5 to 6.9-1.



The plier  
design that  
**OBSOLETE**  
all others  
THE NEW No. 420  
CHAN NEL LOCK  
PLIER



1. Interlocking principle prevents slipping under any load.
2. New type wide base lugs cannot shear.
3. New nose design for gripping small objects.
4. Patented design of tension edge eliminates stress concentration at channels.
5. New interlocking design minimizes stress on joint bolt.
6. Precision machined interlocking surfaces result in perfect fit, distributing pressure evenly.
7. "Rite Angle" teeth guarantee maximum bite and minimum wear.

Here is a plier that will last for years! Channellock Pliers—made only by Champion DeArment Tool Co., Meadville, Pa.

*Send for your Catalog today.*





- PRODUCTION
- PROFITS
- WORKMANSHIP
- EFFICIENCY
- CONVENIENCE

all go  
**UP**  
 ...with  
**WEAVER**  
**Twin Post Lifts**

Weaver Twin Post Lifts eliminate much of the time-consuming, effort-wasting drudgery that plagues mechanics and cuts their production. Actual job-by-job time studies show production increases up to 100% when Weaver Twin Post Lifts are used instead of the old "crawl-under-on-the-creeper" method.

The Twin Post has no obstructing rails in the way . . . lifts vehicle at its normal lifting points . . . gives mechanic free access to every under-chassis point. Independent post operation permits positioning vehicle at most convenient working angle.

The Weaver Twin Post is the only automotive type lift that can handle all wheel base lengths without loss of lifting capacity. The Model EC-100 (illustrated) is regularly furnished with wheel base adjustment of 88" minimum and 148" maximum; Twin Posts with other wheel base combinations are furnished upon special order.

Twin Posts are available air-oil or electrically operated.  
 See your nearest Weaver jobber or write us for Bulletin MA-457.

**WEAVER MANUFACTURING COMPANY • SPRINGFIELD, ILL.**

# Hundreds of Parts for All Popular Cars & Trucks



They **FIT**  
Exactly  
They **RUN**  
Perfectly  
They **LAST**  
Longer



**Wohler**  
CORPORATION  
LANSING 5, MICHIGAN

## Calendar of Coming Events

### Dealer Meetings

June 25-27—Michigan Automobile Dealers Assn., Grand Hotel, Mackinac Island, Mich.

Aug. 23-25 — Automobile Dealers Assn. of West Virginia, Greenbrier Hotel, White Sulphur Springs, W. Va.

Sept. 9-10—N.H.A.D.A. Granladden Hotel, Lake Sunapee, N. H.

Sept. 11-13 — Maine Automobile Dealers Assn., Somerset Hotel, Rockland, Me.

Sept. 13-14—Colorado Automobile Dealers Assn., Broadmoor Hotel, Colorado Springs, Colo.

Sept. 13-15—New York State Automobile Dealers Assn., Saranac Inn, Saranac Lake, N. Y.

Sept. 13-15—Wyoming Automobile Dealers Assn., Irma Hotel, Cody, Wyo.

Sept. 14-15—Automobile Dealers Assn., of North Dakota, Patterson Hotel, Bismark, No. Dak.

Sept. 17-19—New Mexico Automotive Dealers Assn., La Fonda Hotel, Santa Fe, New Mexico.

Sept. 20-22—Kentucky Automobile Dealers Assn., Phoenix Hotel, Lexington, Ky.

Sept. 21-22—Wisconsin Automotive Trades Assn., Hotel Schroeder, Milwaukee, Wis.

Sept. 21-22—Minnesota Automobile Dealers Assn., St. Paul Hotel, St. Paul, Minn.

Sept. 24-25—New Jersey Automotive Trade Assn., Hotel Traymore, Atlantic City, N. J.

Sept. 26-29—A.A.D.A., Inc., Arlington Hotel, Hot Springs, Arkansas.

Sept. 27-28—Georgia Automobile Dealers Assn., Biltmore Hotel, Atlanta, Ga.

Oct. 3-5—Arizona Automobile Dealers Assn., Hotel Westward Ho, Phoenix

Oct. 4-6—National Used Car Dealers Assn., convention, Hotel Statler, Detroit

Oct. 4-6—Texas Automotive Dealers Assn., Texas Hotel, Fort Worth

Oct. 9-10 — Pennsylvania Automotive Assn., William Penn Hotel, Pittsburgh

Oct. 13-16—Federation of Automobile Dealers Assn. of Canada, Royal York Hotel, Toronto, Ontario

Oct. 18-20—Tennessee Automotive Assn., Buena Vista Hotel, Biloxi, Miss.

Oct. 25-27 — Automobile Dealers Assn. of Alabama, Buena Vista Hotel, Biloxi, Miss.

Oct. 25-27 — Florida Automobile Dealers Assn., Sheraton-Beach Hotel, Daytona Beach

Nov. 9-11—Automotive Trade Assn. of Virginia, John Marshall Hotel, Richmond

Nov. 9-11—Ohio Automobile Dealers Assn., Hotel Commodore Perry, Toledo

Nov. 13-14—Montana Automobile Dealers Assn. Convention, Finlen Hotel, Butte, Montana

Nov. 18-19—Oklahoma Automobile Dealers Assn., Mayo Hotel, Tulsa

(Continued on page 188)

## Always **TOP** PERFORMERS



## "Aero-Seal" HOSE CLAMPS



Worm Drive  
Never Works  
Loose

People applaud the way AERO-SEALS keep a tight, leakproof, vibration-proof connection. No pinched or damaged hose — and the clamp won't come loose or snap open, no matter how rugged the service. Easy, one-hand installation. Screwdriver or thumb clamp. The precision worm gear drive does the trick, and AERO-SEALS can be used again and again. Stainless steel bands. 4 sizes cover 90% of needs. AERO-SEALS are your profit pals!

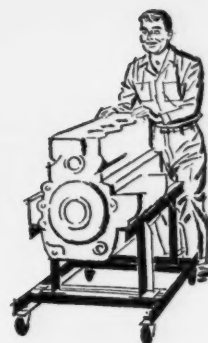
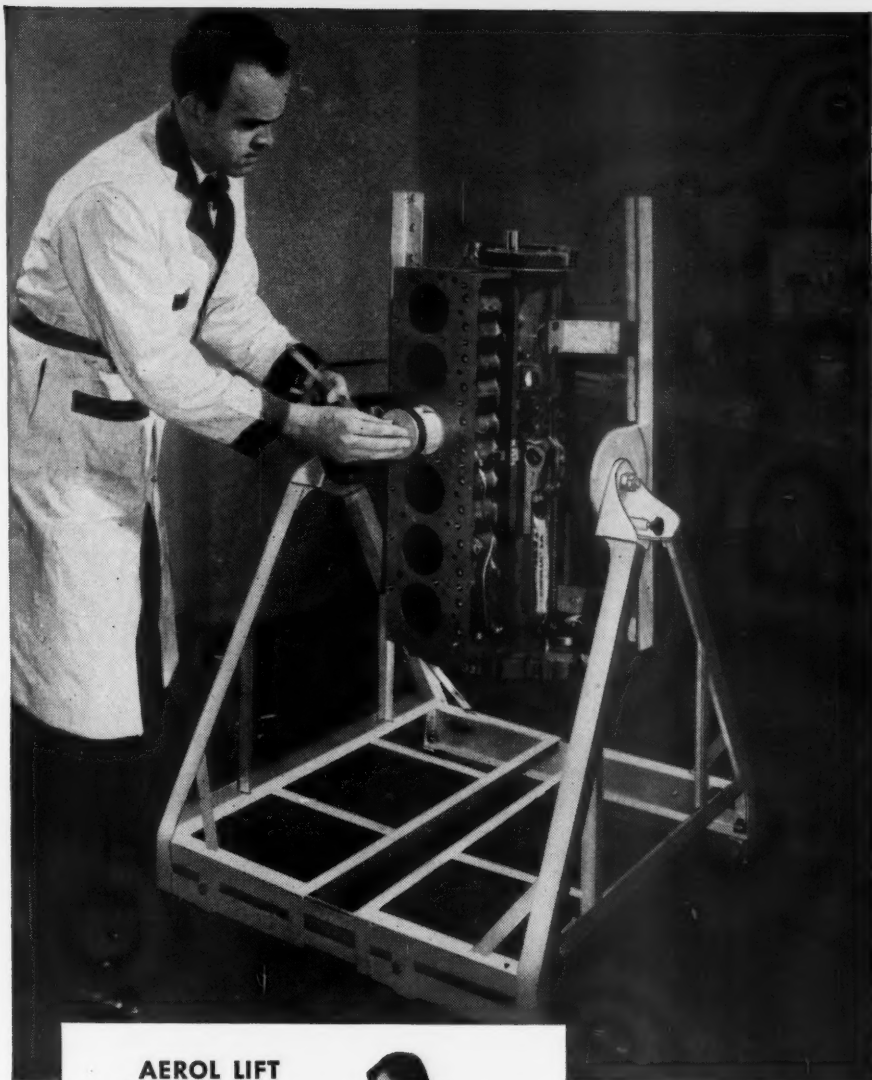
See your local jobber

**"Aero-Seal"**  
WORM DRIVE  
HOSE CLAMPS

ANOTHER **BREEZE MARK** PRODUCT

**BREEZE CORPORATIONS, INC.**  
41 South Sixth Street, Newark 7, N. J.





**Overhaul  
engines**

*Faster  
... More  
Profitably*  
**with "Aerol"  
engine stands**

**AEROL LIFT  
for transmission  
overhaul jobs...**



Engineered to roll under a car or a truck, the powerful Aerol Lift makes transmission and under-chassis overhauls easier and quicker. Assures maximum safety to men and equipment when lowering or installing any under-chassis unit.

### **Convenient, safe, portable, job-engineered**

with a sturdy, mobile "AEROL" engine stand you can do all rebuilding operations faster, easier and more profitably. Full 360° rotation provides complete accessibility for reboring, main and cam bearing align boring, valve assembly, degreasing, reassembly and painting. Lost motion and unnecessary engine handling are eliminated.

"AEROL" engine stands are made in several sizes, with specially designed Mounting Bracket Sets and Mounting Adapter Frames to meet your engine requirements. There's a size and type for every passenger-car, truck, bus, and industrial engine. Send this coupon today for literature and the name of your nearest jobber.

**CLEVELAND  
PNEUMATIC  
Tool Company**

**AUTOMOTIVE DIVISION**

**3789 East 77th Street • Cleveland 5, Ohio**

**CLEVELAND PNEUMATIC TOOL CO.**

**Automotive Division, 3789 E. 77th Street, Cleveland 5, Ohio**

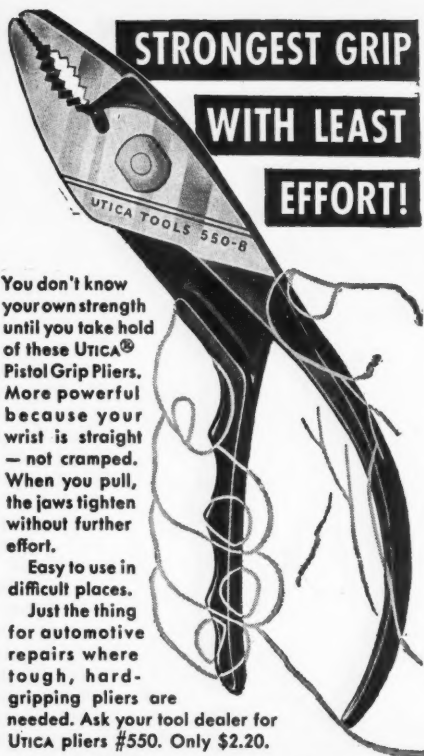
Please send me a copy of the AEROL catalog, and the name of my AEROL jobber.

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**STRONGEST GRIP  
WITH LEAST  
EFFORT!**



You don't know your own strength until you take hold of these UTICA® Pistol Grip Pliers. More powerful because your wrist is straight — not cramped. When you pull, the jaws tighten without further effort.

Easy to use in difficult places. Just the thing for automotive repairs where tough, hard-gripping pliers are needed. Ask your tool dealer for UTICA pliers #550. Only \$2.20.



In Canada: Adlam Tool & Supply Co. Ltd., Montreal

TAKE IT EASY, JUNIOR,  
THE NEXT CAR MAY NOT HAVE  
**SOUTHERN  
FIBRE BLOCK**



**SOUTHERN**  
FRICTION MATERIALS CO. CHARLOTTE 1. N.C.

## Calendar . . . . .

Continued from Page 186

Nov. 30-Dec. 2—Idaho Automobile Dealers Assn., Boise Hotel, Boise, Idaho

Dec. 3—Utah Automobile Dealers Assn., Newhouse Hotel, Salt Lake City

### Industry Meetings

May 22-24—Southeast Automotive Show, Diner Key Exposition Bldg., Miami, Florida

May 25—Automotive Advertisers Council, Spring Meeting, The Homestead, Hot Springs, Va.

June 18-21—Upper Midwest Automotive Trade Show, Municipal Auditorium, Minneapolis, Minn.

Sept. 24-26 — Automotive Wholesalers of Texas, annual convention, Austin, Texas

Oct. 29-Nov. 1—Automotive Parts Rebuilders Convention for 1953, Sherman Hotel, Chicago, Illinois

Dec. 8-9—1953 ASI Show, Navy Pier, Chicago, Illinois

### Frame, Mallon Appointed NADA Committee Heads

The appointment of two additional committees for 1953 was announced by Robert S. Armacost, president of National Automobile Dealers Association.

William Frame, Mineola, N. Y., N.A.D.A. director for New York State, was reappointed chairman of the Magazine Committee. Other committee members are: Harold A. Lanphear, Providence, R. I.; Allan Mims, Rocky Mount, N. C.; and J. Eustace Wolfington, Philadelphia, Pa.

Tom J. Crooks, manager, Texas Automobile Dealers Association, Dallas, Texas, will be the A.T.A.M. member of the Magazine Committee.

William L. Mallon, Newark, director for New Jersey, and N.A.D.A. regional vice-president for Region 2, was reappointed Planning Committee chairman. Frederick M. Sutter, Columbus, Indiana, and J. Eustace Wolfington, Philadelphia, were also reappointed as members of the Planning Committee.

### Juggling the Figures . . .

"How old are you?" he asked her. "Well, let me figure it out," was the reply. "I was eighteen when I married and my husband was thirty. He is now sixty or twice as old as he was then. So I am now thirty-six."

*Time Savers...*  
**KEN** TIRE CHANGING **TOOLS**  
*...they're "Job Designed."*



KEN-TOOLS are hand forged from chrome nickel alloy steel...heat treated for extra long life...Best By Actual Test!

**KEN-TOOL...**  
LARGEST EXCLUSIVE  
MAKERS OF  
TIRE AND WHEEL  
CHANGING TOOLS

See Your Local Jobber for Our Complete Line  
**The KEN-TOOL Mfg. Co.**  
Akron 5, Ohio

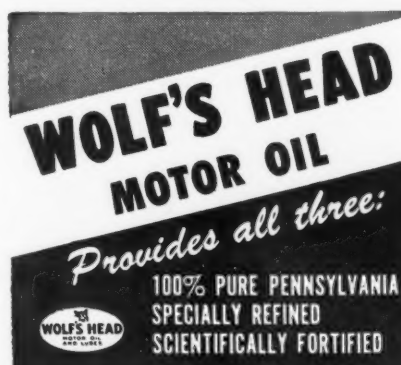
**S-M Self-Adjusting  
TAPPETS**  
Automatically and continuously keep valves in **PERFECT TIMING**

**10-25% Increase in POWER**  
**15-20% MORE miles per gal.**  
**75% REDUCTION in valve MAINTENANCE COST**

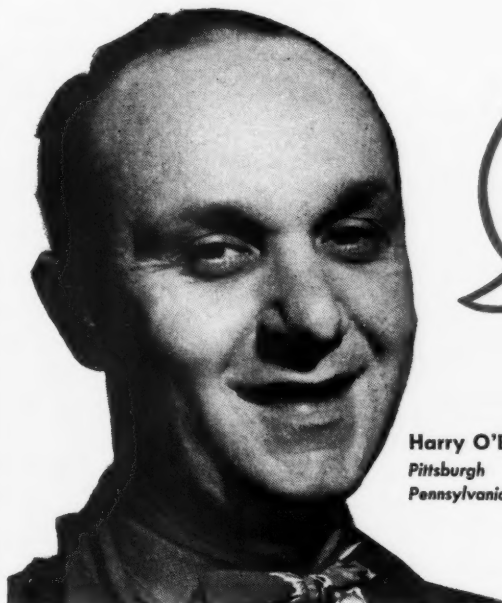
*Write For FREE Folder Today*  
**SKINNER-MOSER SALES**  
DUNEDIN, FLORIDA

**SUNNEN**  
**PIONEER OF  
PRE-RUN-IN,  
Measured  
PIN FITS**

**WOLF'S HEAD  
MOTOR OIL**  
*Provides all three:*  
100% PURE PENNSYLVANIA  
SPECIALLY REFINED  
SCIENTIFICALLY FORTIFIED



# Smart dealers are ordering their Du Pont **ANTI-FREEZE** now



Harry O'Brien  
Pittsburgh  
Pennsylvania

My Anti-freeze order is already in... my source of supply is assured and I can count on good "first-fill" business

If you're not ready with the most popular brands of anti-freeze when your customers want 'em, you are sure to lose business to your nearest competitor. Knowing this, thousands of smart dealers have *already* placed their orders for Du Pont "Zerone" and "Zerex" with their suppliers. What about you? Better sign up now!



Oran J. Rathbun  
St. Louis  
Missouri

It's just good business to order anti-freeze early - waiting too long can be a costly mistake



Ray E. Brown  
Spokane  
Washington

I take no chances, I place my order as early as I can. What a mess it would be if every dealer waited until the last minute!



REMEMBER, when you order Du Pont "ZERONE" and "ZEREX" early, your supplier will have it for you when you want it—NOW OR NEXT FALL

REG. U.S. PAT. OFF.

REG. U.S. PAT. OFF.



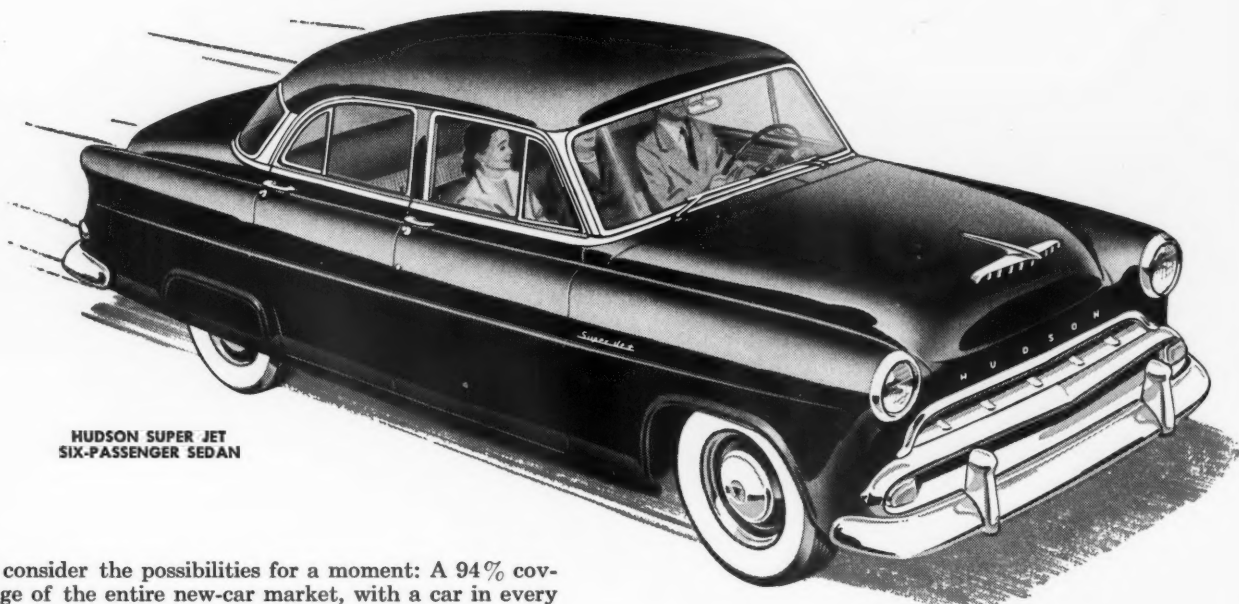
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY



# Here's a new kind of sales opportunity

that puts a dealer in not just one, but all  
price fields . . . including the lowest-price field!



HUDSON SUPER JET  
SIX-PASSENGER SEDAN

**J**UST consider the possibilities for a moment: A 94% coverage of the entire new-car market, with a car in every price range, from the lowest to the most luxurious.

The new Hudson Jet is a smash sales-hit in the lowest-price field. People everywhere are enthused about it. And small wonder! For the Hudson Jet gives the best performance and economy in the lowest-price field . . . and a demonstration ride proves it!

Along with the Hudson Hornet and Hudson Wasp, the Hudson Jet is gaining in popularity every day. And here's another Hudson plus: New Dual-Range Hydra-Matic Drive and Twin H-Power, Hudson's sensational multiple-fueling system, are optional on all series.

Only Hudson can offer you this new kind of sales opportunity, but only if you *act now*. Investigate the Hudson dealer franchise today!

Standard trim and other specifications and accessories subject to change without notice.

# HUDSON

## HORNET

National Stock-Car  
Champion

## WASP

Lower-Priced Running Mate  
of the Hornet

## JET

Best Performance and Economy  
in the Lowest-Price Field

### FREE SAMPLE!

Are you interested in a franchise with a future? Would you like to sample the performance and economy of a Hudson Jet yourself? Phone, wire or mail in this coupon today. There are still good territories available.

C. A. J. Hadley, Sales Manager  
Hudson Motor Car Company  
Detroit 15, Michigan

I would like to drive a Hudson Jet and get full details on the Hudson dealer franchise.

Name

Address

City & State

Firm Name  Position

# Be Right with the Right Design



## ...Like this new **MAREMONT** **STRAIGHT-THRU** for HIGH COMPRESSION ENGINES...

for modern engines of Buick, Mercury, Oldsmobile and Packard. This tone-tailored design—a perfect example of Maremont engineering leadership—meets *all* the exhaust system requirements of these specific engines. Here's why: It has a **STRAIGHT-THRU TUBE** which keeps back pressure at a minimum... an **EXCLUSIVE**

**DOUBLE TONE WELL** that eliminates unpleasant high frequency sounds... a unique **CONICAL CUSHION CHAMBER** that prevents turbulent gas slugs from resounding against the shell... a noise-deadening **DOUBLE WRAPPED SHELL** that assures "hush" performance. Yes, you know you're always **RIGHT WITH MAREMONT!**



### "SELL 'EM AT THE LIFT!"

Maremont gives you the right type of promotion, too, to help you make more muffler money. Ask your Maremont Jobber Salesman to show you the new "Sell 'em at the Lift" promotion.

### The Line with the Right Design... for Every Engine

Four-Ply Asbestos Oval  
Multi-Ribbed Double Wrap Oval  
Standard Double Wrap Oval  
Three-Pass Round  
Tone-tailored Straight Thru  
Dual Exhaust Sets

Cadillac, Chrysler, Oldsmobile  
Ford, Plymouth, Dodge  
Chevrolet, Chrysler, Ford  
Hudson, Lincoln, Nash  
Ford and Chevrolet Trucks  
Most popular V-8 models



# MAREMONT MUFFLERS



**MAREMONT AUTOMOTIVE PRODUCTS, INC.**  
1600 South Ashland Avenue, Chicago 8, Illinois

**Now!** Complete Line of  
**Snugl**  
WHEEL BALANCING WEIGHTS  
for TRUCKS and BUSES



**BEYERSON**  
TRADE MARK

T.V. HEAVY  
DUTY THIN

R & S REGULAR  
TRUCK  
Fits about 80%  
of all Truck Rims

10 Snugl 10  
T FLANGE V

### "STANDARD OF THE TRADE"

Snugl Heavy Duty Truck Weights are especially designed to give

- EASIER APPLICATION
- BETTER FIT
- BETTER BALANCE

The exclusive Dove Tailed Steel Spring Clip holds weight firmly to rim with a Bull Dog grip . . . the beveled edges prevent clip from gouging tire.

When you buy Snugl you can be sure of getting the finest Wheel Balancing Weights on the market . . . designed right and made right to give better balance and better fit. The name Snugl (Registered Trade Mark) on every weight is your guarantee of complete satisfaction.

### FOR PASSENGER CARS

Write for illustrated catalog sheets of Snugl Wheel Balancing Weights for Passenger Cars, Trucks and Buses . . . also name of your nearest Jobber.



Special Thin K & L Flange Weight for Passenger Cars



Regular K & L Weight for Passenger Cars

**MID-WESTERN AUTO PARTS**  
MANUFACTURERS EXCLUSIVELY

MAIN OFFICE AND FACTORY  
KOKOMO, INDIANA

WEST COAST FACTORY  
WHITTIER, CALIFORNIA

## NEW LIQUID TOOL



U. S. PAT. #2318842  
GUNK DUNK BENCH Carburetor and Parts Cleaning Kit  
New 6 1/2 gal., size deep "Vapor-catcher" design pail.

Decarbonizes  
and Cleans  
CARBURETORS,  
FUEL PUMPS,  
PARTS  
Like..

**Magic —  
More Potent\***

## GUNK HYDRO-SEAL

**A WORD OF CAUTION**  
the Genuine GUNK If it doesn't bear trademark, it may be a partly diluted imitation—and will not give you the Safety and Advantages of Genuine GUNK and should be flatly refused.

- \*1. Faster . . . Terrific penetration . . . new improved odor.
- \*2. Quickly digests and removes carbon gum, paint, lead, makes possible accurate visual inspection and fitting of delicate metering mechanisms, jets, orifices and diesel nozzles . . . without etching.
- \*3. Lasts more than one year . . . due to water blanket.
- \*4. Works hot or cold . . . Rinses wet or dry.
- \*5. Patented Double Barrel Performance Guaranteed.

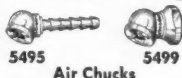
**SOLD BY BETTER JOBBERS EVERYWHERE**  
Write for Name of Nearest Stocking Jobber  
Flatly Refuse Substitute Imitations

**IMMEDIATE DELIVERY**  
I PINT OR A TANK CAR

**CURRAN CORP.**  
Mfg. Chemists  
LAWRENCE, MASS.



## Turn your airlines into profit lines!



Air Chucks



2030 Dual Foot Chuck Gauge with handy "trigger-pull" action

Be sure your air service is quick, positive and damage-proof to tire valves—use Schrader Air Chucks and other airline fittings to provide high speed air flow and trouble-free service.

**Schrader**

See our ad

on page 161

**A. SCHRADER'S SON, BROOKLYN 38, N. Y.**  
Division of Scovill Manufacturing Company, Incorporated

# MOTOR AGE

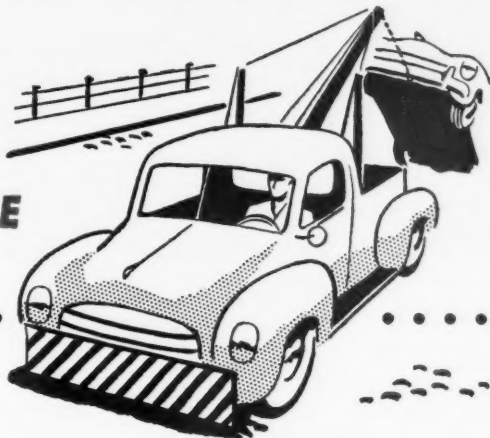


The Quality  
Magazine  
of the Automotive  
After-Market



# CHAMP-ITEMS TROUBLE SHOOTERS

**HELP  
YOUR  
SERVICE**



Champ-Items are time savers — money makers for every shop. When you are having service trouble, you'll find a Champ-Items Trouble Shooter to help you lick it. Send for Champ-Items Catalog No. 53 featuring more than 200 Automotive Replacement Parts.

**CHAMP-ITEMS, INC.**

8191 MAPLE AVE.  
ST. LOUIS 14, MO.



**No. 600 SERIES UNIVERSAL STUDS** for manifold, transmission, and motor repairs for all cars, trucks and tractors. Made of high tensile steel heat treated. U.S.S. and S.A.E. threads 1/4" to 7/16" diameter and 1" to 4" long.

**List 15¢ per stud.**

**No. 600 STUD ASSORTMENT** contains 126 studs — 25 different sizes in metal box.

**No. 636 AUTOBODY TRIM AND FENDER SCREWS** for all cars and trucks. Hex. head slotted — washer face — cadmium plated — 10 popular sizes for all general purposes; slotted for fast assembly; washer face for secure fastening.

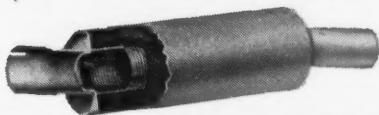
**List 2¢ to 6¢ each.**



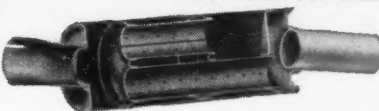
**ORDER FROM  
YOUR JOBBER**

## 3 REASONS... why you'll want to sell these

**Profit-  
Building  
PORTER  
TWINs!**



• Porter Steel Pack Muffler



• New-Type Porter Hollywood Muffler

● **Every Car Owner Is A Prospect.**

PORTER mufflers cut harmful back-pressure — increase power as much as 13%. For this reason more and more car owners are switching to PORTER.

● **Built To Outlast Ordinary Mufflers 2 To 5 Times.**

Made of durable, 16-gauge cold-rolled seamless tubing. All-welded. Custom-fit connections seal out harmful gasses. Dense shredded steel pack heats up uniformly. Prevents moisture condensation and harmful rust.

● **PORTER Gives You MORE Than Quality.**

A leading exhaust system manufacturer for nearly a quarter-century, PORTER offers you a complete line of mufflers, dual sets, headers, and exhaust accessories for every car. But that's not all! As a PORTER AUTHORIZED DEALER, you also get a complete selection of tested sales aids... and the easiest-to-use catalog in the industry!

Write today to learn how you can increase your profits by becoming a  
**PORTER AUTHORIZED DEALER!**

**PORTER** MUFFLER MFG. CO., Inc.

Dept. A 11820 Olympic Blvd., Los Angeles 64, Calif.

## How MILEY Gives You A 3-WAY BETTER DEAL on Bonded Linings



1. **MILEY IS THE ONLY SYSTEM USING**  
an UNCURED lining to insure a closer tighter fit; with no squeaks, no crumbling of lining—the bonding and final CURING is done at the same time—the lining is NEVER overbaked.
2. **MILEY BLACK GOLD "POLICE TESTED" BRAKE LINING IS**  
made to resist oil, grease, brake fluids and moisture. Its 70% metallic base, with low content of asbestos and fibre, will not score brake drums, gives a quicker, surer stop with longer mileage.
3. **MILEY MAKES ITS OWN BRAKE SHOES—**  
to insure absolute accuracy and quality control.

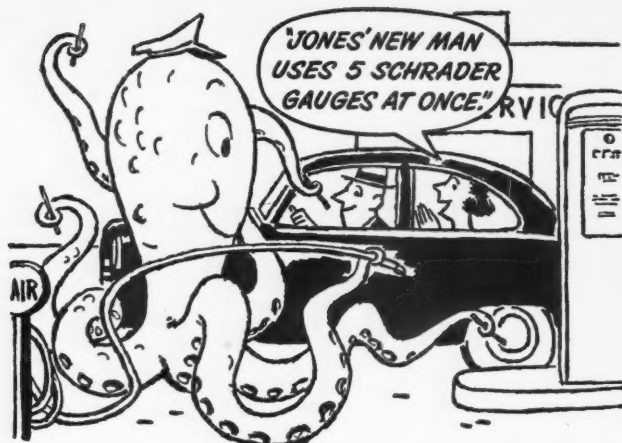
This 3-way combination is your guarantee of quality bonding—don't settle for less—remember

**MILEYBOND IS YOUR BOND FOR SAFETY—SATISFACTION**

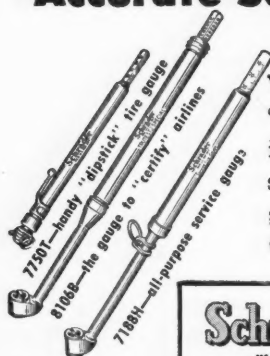
Miley Jobbers everywhere will supply you with Mileybond Brake Shoes —with greater profit at less cost to you. Call one of them today.

**L. J. MILEY CO.**

Manufacturers of Brake Lining, Brake Shoes, Re-built Cylinders  
18 S. SANGAMON • CHICAGO 7, ILLINOIS



## Accurate Schrader gauges bring 'em back!



Whether you want a gauge to "certify" all your gauging-inflating equipment, or an all-purpose service gauge, or a handy pocket gauge—Schrader makes them all. Order from your supplier.

**Schrader**  
REG. U.S. PAT. OFF.

See our ad

on page 161

**A. SCHRADER'S SON, BROOKLYN 38, N. Y.**  
Division of Scovill Manufacturing Company, Incorporated

## SOLATONE ANTI-CARBON UNIT

**ELIMINATES CARBON  
IN THE ENGINE!  
REDUCES WEAR!  
IMPROVES COMBUSTION**

SOLATONE is not a filter...not a solvent, it is a catalyser which disperses carbon and gum deposits and renders them non-abrasive and non-adhesive. SOLATONE is a positive preventive of abrasive formation.

### SO EASY TO INSTALL!

...on both fuel line and oil lubricating systems of all types of engines.



Write to...

**A. B. HYDROCARBON SYSTEMS**  
2808 McKinney Ave. Dallas, Texas

### HERE'S WHAT USERS SAY:

"...SOLATONE anti-carbon is a necessity for modern high compression engines..."

Racing Equipment Co.\*

"...head cylinders, pistons and rings remarkably clean..."

Leading Engine Manufacturer\*

"...SOLATONE units are all you claim and more..."

Racing Car Company\*

"...SOLATONE installed on my car produced outstanding results..."

Leading Oil Filter Manufacturer\*

"...this process is a remarkable new advance in modern technology..."

Chemical Engineer\*

\*Excerpts from letters in our files.

Insist on **CIRCO**

## METAL CLEANING EQUIPMENT DEGREASING SOLVENTS

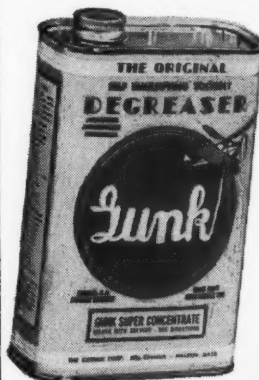
- VAPOR DEGREASERS
- METAL PARTS WASHERS
- STEAM CLEANERS

PER-SOLV (Perchloroethylene) CIRCO-SOLV (Trichloroethylene)

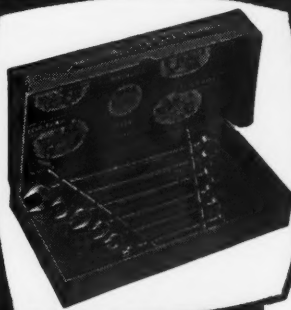
Manufactured by  
**TOPPER EQUIPMENT COMPANY**  
Clark Township (Rahway) New Jersey

## ENGINE SHAMPOO

\$1.00 Size Concentrate  
MAKES 2 GALLONS



GUNK SUPER CONCENTRATE DILUTES with low-cost kerosene or fuel oil distillate and cleans engine blocks faster and more completely than steam cleaning. In quart and larger sizes at wholesale automotive jobbers throughout country. Extra strength, ready-to-use Gunk in pint containers is available from any of the Harley-Davidson motorcycle dealers everywhere.



**METAL ENGINEERING  
COMPANY**  
134 N. La Salle St.  
CHICAGO 2, ILL.

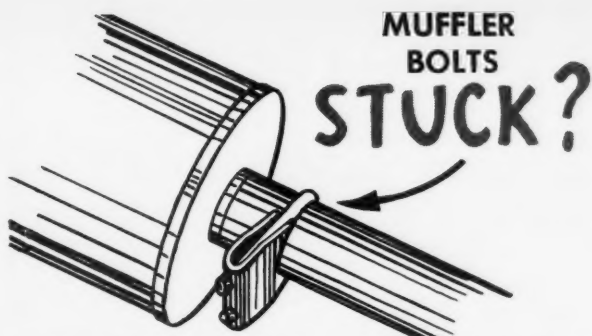
LOOKING FOR  
**BIG VOLUME SALES  
in RESALE TOOLS?**

Ask your jobber  
about the latest

**METCOLD**  
HANDY SELF-DISPLAY  
**TOOL KITS**

## BUY BONDS





## TASGON WILL LOOSEN IT!

Use *Tasgon* to free bolts, nuts, couplings frozen by rust. Penetrates tight joints . . . cuts grease, paint and tar, prevents breakage of expensive parts.

Keep *Tasgon* in your mechanic's kits. It will pay for itself over and over again.

Write Today for **FREE** sample and complete information.

**SAMUEL CABOT INC.**

576 Oliver Bldg., Boston 9, Mass.



# TASGON

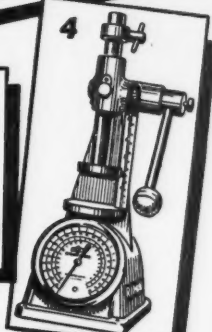


EVERY MECHANIC AND  
EVERY SHOP NEEDS THESE  
**RIMAC**  
TIME AND LABOR SAVERS

1. **Ring - Master PISTON RING COMPRESSOR** No. 220—for cars and light trucks. Capacity 2 1/8" to 5". Ht. 3 1/8". Larger sizes for trucks, tractors, and Diesels.
2. **RING GROOVE CLEANER** No. 122—Removes carbon from grooves, all pistons from smallest to 6".
3. **COMPRESSION INDICATOR** No. 61—Range 0 to 160 lbs. **VACUUM INDICATOR** No. 66—Range 0 to 30 in.
4. **SPRING TESTER** No. 67—For Valve and Clutch Springs.
5. **FLEX-STONE** No. 1—Contact Point Dressers. No. 2—Extra thin and fine for voltage regulators.

Write for Complete Rimac Catalog

**RINCK-McILWAINE, INC.**  
16 Hudson St., New York, N.Y.



### WILL NOT UNDERCUT

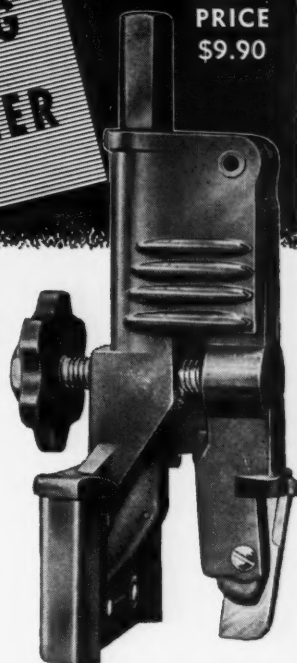
The principle of removing the ridge is same as employed when using an expansion reamer; result, a smooth wall surface!

**CARBOLOY TIPPED CUTTER BLADE REQUIRES LESS SHARPENING**

#### Features

- Quick and easy operating
- Simplified construction
- Longer life Cutter Blade before sharpening

Range of sizes 2 3/8" to 4 1/8" incl.



The Carboloy tipped cutter blade will remove ridges in Ford Steel Sleeves without damage to the Cutter Blade.



**ALL-POWER MFG. CO.,**  
MONTEBELLO • CALIFORNIA



"Knock-Out"  
**Valve Refacer**

MODEL K403



SEE YOUR  
AUTHORIZED  
K. O. LEE  
DISTRIBUTOR  
OR WRITE  
FOR  
COMPLETE  
LITERATURE

#### features:

- Grinds wet or dry
- Valve stem range 1/4" to 11/16" with three collets
- Five-inch grinding wheel
- Valve head capacity up to 3 1/2", within valve stem range
- V-type table ways requiring no adjustment for wear
- Zero to 90° positive-stop face angle settings—with minus 1° for any angle
- Collet-type work head with controlled rpm's
- Concealed coolant system
- Right-hand table traverse arm
- Precision built for accuracy!

**K. O. LEE COMPANY, ABERDEEN, SOUTH DAKOTA**  
WET VALVE REFACTERS • VALVE SEAT GRINDER SETS • VALVE SEAT INSERTS  
RESEATER SETS • ROD ALIGNERS • STUD WRENCHES • DRILLS • SANDERS  
POLISHERS • HAND GRINDER SETS • REAMER DRIVES • A. C. WELDERS



A.B. Hydrocarbon Systems .. 194  
 AC Spark Plug Div. ....30-31  
 AP Parts Corp. ...116-117-118-119  
 Air Express Div. .... 125  
 Airtex Automotive Div. .... 84  
 All-Power Mfg. Co. .... 195  
 Allen Electric & Equip't Co.. 163  
 Allied Motor Parts Co. .... 178  
 Aluminum Industries, Inc. ... 75  
 American Bosch Corp. .... 78  
 American Brakeblok Div. .... 145  
 American Hammered Auto-  
 motive Replacement Div. .... 135  
 Ammco Tools, Inc. .... 76  
 Armstrong-Victor Div. .... 107  
 Arco Company .... 77  
 Auto Specialties Mfg. Co. .... 130  
 Automotive Equipment Mfg.  
 Co. .... 153

Bardahl Mfg. Corp. .... 143  
 Bean Div., John .... 160  
 Bendix Aviation Corp.,  
 Service Sales Div. .... 11  
 Binks Mfg. Co. .... 122  
 Black & Decker Mfg. Co. ....92-93  
 Blackhawk Mfg. Co. ....14-73  
 Borg Warner Corp. .... 177  
 Bowes Seal Fast Corp. .... 85  
 Breeze Corporations Inc. .... 186

Cabot, Inc., Samuel .... 195  
 Carter Carburetor Corp. ....87  
 Central Tool Co. .... 148  
 Champ-Items, Inc. .... 193  
 Champion de Arment Tool Co. 184  
 Chevrolet Div. .... 13  
 Chrysler Corp. (Parts Div.) .. 28  
 Chrysler Corp. .... 129  
 Cleveland Pneumatic Tool Co. 187  
 Cle vite Service, Inc. .... 95  
 Commercial Credit Corp. .... 173  
 Crescent Co., Inc. .... 79  
 Curran Corp. ....192-194

De Koven Mfg. Co. .... 89  
 Delco Remy Div. .... 7  
 De Vilbiss Co. .... 197  
 Du Pont de Nemours Co., Inc.,  
 E. I. .... 189

Echlin Mfg. Co. .... 90  
 Electric Auto Lite Co.  
 8-9-22-23-100-101  
 Electric Storage Battery Co. .26-27  
 Executone Inc. .... 134

Farm Journal ....120-121  
 Federal-Mogul Service ....6-169  
 Federated Metals Div. .... 142  
 Fitzgerald Mfg. Co. .... 123  
 Ford Motor Co. .... 113  
 Fulton Company ....154-155

Gabriel Co. .... 138  
 General Electric Co. .... 4  
 Graymills Corp. .... 168  
 Grizzly Mfg. Co. .... 137  
 Guide Lamp Div. .... 167

# Index to Advertisers

This Advertisers' Index is published  
 as a convenience, and not as part  
 of the advertising contract. Every  
 care will be taken to index cor-  
 rectly. No allowance will be made  
 for errors or failure to insert



Hastings Mfg. Co. ....2nd Cover  
 Hein-Werner Corp. .... 115  
 Heller Brothers Co. .... 86  
 Holley Carburetor Co. .... 12  
 Hollingshead Corp., R. M. ... 91  
 Homestead Valve Mfg. Co. ... 146  
 Hudson Motor Car Co. .... 190  
 Huot Mfg. Co. .... 128  
 Hygrade Products Div. .... 162

Imperial Brass Mfg. Co. .... 139  
 Industrial Tape Corp. .... 96

Johnson Bronze Co. .... 82  
 Johnson Products, Inc. .... 126

Kelite Products, Inc. .... 172  
 Ken Tool Mfg. Co. .... 188  
 Kent-Moore Organization .... 94  
 Kester Solder Co. .... 110

Laher Spring & Tire Corp. ... 19  
 Lee Company, K. O. .... 195  
 Lempeco Products, Inc. .... 124  
 Lincoln Electric Co. .... 166  
 Lion Oil Co. .... 99  
 Lynch Corp. .... 98

McQuay-Norris Mfg. Co. ...132-133  
 Manbee Equipment Div. ...174-175  
 Maremont Automotive Prod-  
 ucts, Inc. .... 191  
 Martin-Senour .... 159  
 Mechanix Illustrated .... 183  
 Metal Engineering Co. .... 194  
 Mid-Western Auto Parts .... 192  
 Miley Co. Inc., L. J. .... 193  
 Minnesota Mining & Mfg. Co. 170

Monroe Auto Equipment Co. . 198  
 Moog Industries, Inc. .... 5  
 Motorola, Inc. .... 111

National Automotive Parts  
 Assn. .... 131  
 National Machine Works Inc. 74  
 National Motor Bearing Co. ... 181

Owatonna Tool Co. .... 112

Packard Electric Div. ....20-21  
 Perfect Circle Corp. .... 71  
 Perfect Equipment Corp. .... 144  
 Perfection Gear Co. .... 147  
 Permatex Co. Inc. .... 1  
 Polk & Co., R. L. .... 158  
 Porter Muffler Mfg. Co. .... 193  
 Prest-O-Lite Battery Co. ...156-157  
 Purolator Products, Inc. .... 15

Radiator Specialty Co. .... 88  
 Ramsey Corp. ....3rd Cover  
 Raybestos Div. .... 10  
 Rinck-McIlwaine, Inc. .... 195  
 Rinshed-Mason Co. .... 171

Saturday Evening Post .... 18  
 Schrader's Son Div., A.

161-192-194  
 Sealed Power Sorp. .... 32  
 Sealed Power Corp. (Amer-  
 ican Hammered Div.) .... 135  
 Skil Corporation ....164-165  
 Skinner-Moser Sales .... 188  
 Snap-On Tools Corp. .... 83  
 Southern Friction Materials .. 188  
 Speedi Dri Corp. .... 136  
 Studebaker Corp. .... 69  
 Sun Electric Corp. .... 106  
 Sun Oil Company .... 176  
 Sunnen Products Co. .... 188

Texas Co. .... 2  
 Thermoid Company ...Back Cover  
 Thompson Products, Inc. .... 103  
 Timken Roller Bearing Co. ... 29  
 Topper Equipment Co. .... 194  
 Trico Products Corp. .... 97

U. S. Industrial Chemicals Co.  
 149-150-151-152  
 United States Treasury Dept. 182  
 Utica Drop Forge & Tool  
 Corp. .... 188

Wagner Electric Corp. ....16-17  
 Walker Mfg. Co.  
 24-25-80-81-108-109

Weatherhead Co. .... 179  
 Weaver Mfg. Co. .... 185  
 Westinghouse Air Brake Co. . 127  
 Wilkening Mfg. Co. ....140-141  
 Wiremold Company .... 184  
 Wiry Joe .... 79  
 Wohlert Corp. .... 186  
 Wolf's Head Oil Refining Co. . 188  
 Wood Co., Frank N. .... 102  
 World Bestos Corp. ....104-105



**"Even with lacquer I always get  
a full 'wet' coat  
with my DeVILBISS gun"**

**Cliff Corbit, painter at B & B Chevrolet, Detroit, Michigan,  
tells how he gets paint jobs that look like factory finishes.**

"The secret of a beautiful lacquer finish is a good wet spray coat," says Cliff Corbit, experienced auto painter. "I've tried several makes of spray guns, but none seemed to lay on a coat of lacquer as neat and clean as a DeVilbiss gun."

Cliff turns out over 100 jobs a month in a busy Chevrolet dealership. He credits DeVilbiss equipment with a big assist in keeping

up with the volume. "These guns make the job a lot easier — they're easy to adjust and they stay adjusted. I really like the nice balance and the way they handle. Cleaning is no problem either, and DeVilbiss guns never seem to need servicing."

Cliff Corbit is one of the thousands of experienced painters who use DeVilbiss spray guns for jobs

they can be proud of . . . jobs that assure customer satisfaction. Top-notch painters also rely on DeVilbiss to keep them up to date on new methods, materials and equipment. By attending the tuition-free DeVilbiss school, they learn the latest spraying techniques.

DeVilbiss equipment is sold by the leading jobbers in your area, who will be glad to help you take advantage of the many DeVilbiss services. Call today, or contact our branch office or factory.



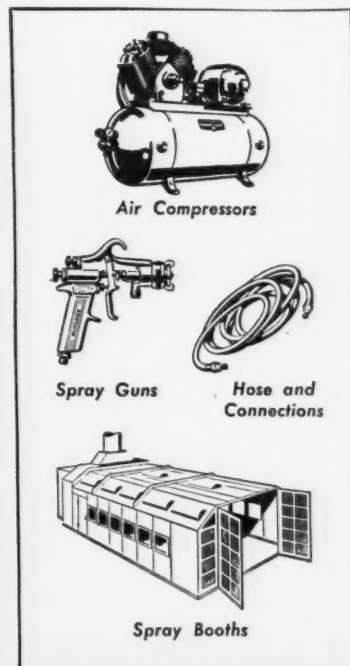
*Painter Cliff Corbit turns out 100 or more jobs each month using DeVilbiss Spray Equipment.*

**THE DEVILBISS COMPANY, Toledo, Ohio**

Windsor, Ontario • London, England • Santa Clara, Calif.

Branch Offices and Distributors in Principal Cities Throughout the United States, Canada and the World.

Chilton's MOTOR AGE, MAY, 1953



FOR BETTER SERVICE, BUY

**DEVILBISS**



Cash in on this proven profit maker

MONROE'S

30-DAY FREE RIDE

PLAN!

**MONRO-MATIC**

## SHOCK ABSORBERS

- Thirty-day guarantee of customer satisfaction
- Monro-Matics—the sales leader that makes cars ride better than new
- Small stock serves 95 per cent of all cars
- Installation in as little as 10 minutes per shock

**2 out of 5  
need  
Shock  
Absorbers**

Shock Absorbers must be replaced on modern cars. Soft, whippy springs require "shocks" to give smooth, safe ride. Many states now require regular "shock" inspection for safety. Now 24,000,000 cars equipped with direct-action shock absorbers. Millions more need Monroe easy-to-install "Conversion" Sets. Actual tests show you can sell 2 out of every 5 customers.



The new Monroe 30-Day Free Ride Plan provides the greatest profit opportunity ever offered the industry. Guarantee makes sales easy for every car that needs shocks replaced—two out of every five cars you service.

The sensational new Monro-Matic shock absorber gives you a "leader" that makes cars ride better than new. Gives automatic adjustment for all loads and roads. Lets you sell complete sets for more than \$10.00 profit. Dealers now using this plan are selling up to 3 and 4 sets a week. Get started with this money-making plan now. See your jobber or write today.

Order this display, today! Package holds balanced set of 4 shocks to fit practically every owner's car.



**MONROE AUTO EQUIPMENT CO.**

Monroe, Mich.—World's Largest Maker of Ride Control Products



# Your BIG PROFIT DIFFERENCE is RAMCO No Gap Spiro-Seal!

*...it Bridges the Gap!*

You put your finger on the biggest single difference in piston rings when you point to Spiro-Seal! With patented Spiro-Seal you can rely on stabilization rather than pressure to control oil and blow-by. That means more horsepower for engines. More

satisfaction for customers. More sales and profits for you.

Show your customers the patented continuous steel segment, SPIRO-SEAL! Even those unfamiliar with rings can see that this ring is truly different . . . and it is so easy to ex-

plain to your customers why Ramco Rings with Spiro-Seal give them so much for their money.

ASK YOUR RAMCO JOBBER for the "Inside Facts" booklet, or write for your free copy to Ramsey Corporation, St. Louis 8, Mo.

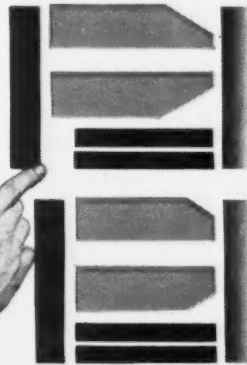
**INCREASES  
PROFITPOWER**

**STEPS UP  
HORSEPOWER**

**EXCLUSIVE  
DOUBLE-LIFE ACTION**

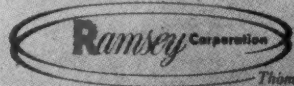
## 1st LIFE

easy-seating cast-iron ring receives  
INITIAL INNER-RING CONTACT ONLY



## 2nd LIFE

as seat-in is completed BOTH CAST-IRON AND STEEL SPIRO-SEAL are contacted by inner-ring



St. Louis 8, Missouri,  
A subsidiary of  
Thompson Products, Inc.

**You Profit All-Ways with RAMCO PISTON RINGS**

12

"I bumped  
my head  
on Daddy's  
dashboard"



When brakes grab . . .  
anything can happen!

### Install Thermoid CB Brake Linings

Thermoid Custom Built Sets provide dependable, uniform friction, wet or dry. They contain E-929 Dry Mix lining, originally developed for heavy duty amphibious military vehicles. These linings provide smooth, safe braking action under any weather conditions.

Always install Thermoid—the safest thing on wheels!



The only brake linings  
approved by the Pittsburgh  
Testing Laboratories

# Thermoid

Thermoid Company • Trenton, New Jersey

the standard of precision  
processing in brake lining,  
brake blocks, hydraulic fluid,  
cylinder assemblies, hydraulic  
brake parts.

